

# SOUTHERN TEXTILE BULLETIN

VOL. II

CHARLOTTE, N. C., DECEMBER 21, 1911

NUMBER 16

## WHITIN AND KITSON COTTON MILL MACHINERY

**W**E HAVE furnished plans, specifications and engineering work for over one hundred and fifty cotton mills in the South. Have furnished machinery and complete equipments for nearly all of these mills, and for as many more designed by other engineers. Our large experience enables us to insure the very best results. A large majority of Southern mills use some of our machinery, many use it exclusively.

KITSON Improved Picking Machinery.

WHITIN Roving Machinery, with Patented Improvements.

WHITIN Cards, Drawings, Railways, Combers, Sliver and Ribbon Lap Machines, Spinning, Twisters, Spoolers, Reels, Looms, Quillers.

CRAMER Air Conditioning System for Humidifying, Ventilating and Air Cleaning.

CRAMER Automatic Regulators for any make of Humidifying and Heating Systems.

MISCELLANEOUS EQUIPMENT: Winding, Slashing and Warping Machinery; Card Grinders; Cloth Room and Finishing Machinery; Nappers; Dye House Machinery; Power Plants; Steam, Water and Electric Fire Protection, Electric Lighting, Humidifying Apparatus, Heating and Ventilating Apparatus, Shafting, Pulleys and Hangers, Belting and Supplies.

### STUART W. CRAMER

ENGINEER AND CONTRACTOR

CHARLOTTE, N. C.

Organization  
of  
Old Mills  
a Specialty

Complete  
Equipment for  
New Cotton  
Mills

## OUR RINGS

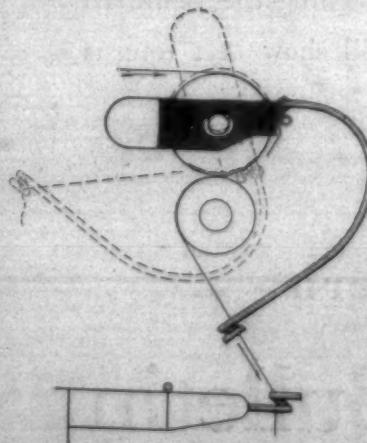
Set the Standard for Quality

THERE ARE NONE OTHERS  
"JUST AS GOOD"



MIRROR SPINNING RINGS  
TRADE MARK REG U.S. PAT. OFF.  
DRAPER COMPANY  
HOPE DALE, MASS.

## The Smith Stop Motion for Two Ply Twisting



Eliminates Waste;  
prevents roller laps;  
enables the help to  
tend more spindles;  
the only simple device  
for the purpose.

DRAPER COMPANY  
HOPE DALE, MASS.

SOUTHERN AGENT

J. D. CLOUDMAN - 40 S. Forsyth St., ATLANTA, GA.



# Reaching the South

The Southern cotton mills can only be reached through a Southern journal.

Only one of the Northern textile journals has as many as 1000 subscribers in the South and the total Southern circulation of all the Northern textile journals is less than 2000.

The Northern journals have large circulations in the North and some circulation in the Middle West, but none of them can obtain or hold a large circulation in the South.

The two sections are different and the mill people have different interests and each section has its own journals.

The Southern Textile Bulletin has no circulation except in the South, but it has more paid subscribers among the Southern cotton mills than any other journal.

The best medium for reaching the Southern mills and the one that will show best returns is the

## Southern Textile Bulletin

CHARLOTTE, N. C.

DIANIL COLORS  
HELINDONE COLORS

THIOGENE COLORS  
INDIGO M L B

MANUFACTURED BY

Farbwerke vorm Meister, Lucius & Bruening

Victoria Sizes and Finishing Compounds

MANUFACTURED BY

Consolidated Color and Chemical Company  
NEWARK, NEW JERSEY

### H. A. METZ & CO.

Sole Agents for United States and Canada

122 HUDSON STREET, NEW YORK

SOUTHERN }  
BRANCHES: }

Charlotte, 270 S. Tryon Street  
Atlanta, Empire Building

Manufacturers Should Look Up the Advantages of the

## Metallic Drawing Rolls

Over the leather system before placing orders for new machinery, or if contemplating an increase in production, have them applied to their old machinery,

**25 Per Cent. More Production  
Guaranteed.**

SAVES

Roll Covering, Varnishing, Floor Space,  
Power, Waste and Wear.

**1-3 Less Weight Required**

*Write for Points Claimed, Also Prices and Particulars to*

**The Metallic Drawing Roll Co.**  
INDIAN ORCHARD, MASS.

EVOLVING  
FLAT CARD  
BRUSHES

of all kinds

LOOM DUSTER

Felton's is best for  
your weave room



Write for Catalogue

**S. A. Felton & Son Co.**  
MANCHESTER, N. H.



# SOUTHERN TEXTILE BULLETIN

VOL. 2

CHARLOTTE, N. C., December 21, 1911

NUMBER 16

## Analysis of Loom Power

Henry W. Atchinson, Athens, Ga., before  
Southern Textile Association

**I**N order to make the calculation for the horse power required for a plain loom, it is necessary that four factors be known at the outset. They are the speed of the loom expressed in picks per minute, the distance the shuttle travels for every pick, the weight of the shuttle and bobbin, and the type of harness cam used. These factors are usually known or easily ascertained in connection with any particular loom under consideration.

An examination of a plain loom makes it very apparent that there are three separate motions during weaving that require power, namely: the picking motion, the shedding motion, and the sley, which includes the take-up. The amount of power required by each must be a distinct calculation and the three results combined to give the total horse power necessary for the loom during its operation. Neglecting the friction of the bearing, gears, etc., the three motions therefore consume all the power expended in weaving.

In figuring the horse power for the picking operation, it is assumed that the shuttle travels in a straight line while crossing the loom, because its path is so nearly a straight line that the difference would not change the result we are seeking. It is also assumed that the shuttle enters the boxes properly, and that the harnesses are set so the friction of the yarn is negligible, and that there is no lost motion.

Let us now take up a concrete example, and figure the horse power required for a plain loom making 36 inch, 60x56 4.00 yard goods, running at 160 picks a minute, and using 120° crank rest harness cams, which expressed fractionally means that during 1-3 of a revolution of the crank shaft, the harnesses are stationary to allow the shuttle to pass through the warp, the other 2-3 of the revolution being used in changing the positions of the harnesses. The travel of the shuttle for every pick will be 60.25 inches. The total weight of the shuttle and bobbin is 14 ounces.

The time in which the shuttle must cross the loom is found from the speed of the loom (160 picks per minute) and the development of the harness cam (120° crank rest). Since 1-3 of a revolution of the crank shaft is allowed for the travel, the time will be 1-3 of 1-160 minute=1-480 minute=1-8 second. It is now ne-

cessary to find the velocity of the shuttle expressed in feet per second, which with the known weight of the shuttle will enable us to calculate the amount of work or foot pounds.

In the formula for acceleration,  $S=1-2ft^2$ , where S, represents the space traveled, (f) the acceleration, and (t) the time. Substituting the known values, we have  $60.25 \text{ inches} = 1-2f(1-8)^2$   
 $f=7712 \text{ inches per second, acceleration.}$

The formula for velocity is  $V ft$ , where V, represents velocity, (f) the acceleration, and (t) the time. Substituting the known values, we have  $V=7712 \text{ inches} \times \frac{1}{4}=964 \text{ inches per second, velocity of the shuttle, 964 inches equal 80.3 feet.}$

The equation for work is  $\text{Work}=1-2 M V^2$ , where M represents mass (which equals weight divided by gravity), and V represents velocity; in this case it is the velocity of the shuttle. We know the values of the factors in the equation, we have

$$\text{Work} = \frac{1}{2} \times \frac{14}{32} \times (80.3)^2 = 88.15 \text{ foot-pounds per second, or 5289 foot pounds per minute.}$$
  
Since 1 horse power represents 33000 foot-pounds of work per minute, 5289 foot-pounds will equal 5289 divided by 33,000, or .160 horse power, required for the picking operation.

The speed of the loom is governed by the shuttle velocity in most cases and the later should be kept about the same, for all widths of looms. It will thus be seen that, as the shuttle velocity depends upon the space traveled by the shuttle, and the time, the narrower the loom, the higher the speed at which it can be run and still maintain the same shuttle velocity as a wider but slower loom. Excessive loom speed means excessive shuttle velocity, and this causes undue strain and wear on the loom parts, resulting in excessive breakages. By finding a suitable shuttle velocity for one width of loom, and the proper speed of the loom, any width can be figured to give the same velocity,

and the corresponding speed for that width, so that there will be no excessive wear and tear.

To determine whether the picking motion on the loom under consideration was giving the required velocity to the shuttle as figure, or was expending too much power, the levers and straps were taken just as they were set, all except the position of the lug strap on the picker stick. The calculation was then made, using the above information, to determine the proper position to set the lug strap on the picker stick to give the required velocity to the shuttle. The position thus determined by calculation was compared with the position of the lug strap as it was set on the loom.

In making the calculation for the position of the lug strap on the picker stick, it is necessary to determine with what velocity the lug strap is moved in an horizontal direction by the levers and pick cam. From the development of the pick cam and the speed of the loom, we find the distance and time in which the pick ball is raised. From the lengths of the levers, we find the distance the lug strap moves in an first comes into the mill. I want to horizontal direction; and subtracting the slack in the lug strap gives it the distance through which it passes being in contact with the picker stick. Then working back through the levers, we find the distance the pick ball rises after taking up the slack in the lug strap, and also the time.

From the development of the pick cam, we obtain the velocity with which the pick ball rises after taking up the slack in the lug strap. From the levers connecting the pick ball and lug strap, the velocity of the lug strap is found. Then, knowing the velocity required for the shuttle and the length of the picker stick, we can determine by proportion the theoretically correct position to set the lug strap on the picker stick to give the required velocity of the shuttle. The following lengths are given: Picker ball arm, 4 1-2 inches vertical arm, 8 inches; distance picker ball rises, 1 3-4 inches. The distance the lug strap is pulled when the pick cam

acts upon the pick ball is found by proportion to be 3 1-9 inches.

The slack in the lug strap was 8-9 inches, so that  $3 \frac{1}{9} - 8 - 9 = 22-9$  inches the distance through which the lug strap passes, being in contact with the picker stick. Substituting 22-9 in the proportion, we find the picker ball rises a distance of 1 1-4 inches after taking up the slack in the lug strap. We find from the development of the pick cam, graphically, that the time required by the said cam to raise the pick ball is 3-10 of 1-16 of 1-80 minute, or 60-80 second. Then substituting in the formula:  $S=\frac{1}{2}ft^2$ , where S, is the space, f, the acceleration, and t, the time, we have

$$\begin{aligned} 5 \text{ ins.} &= \frac{1}{2} \times f \times \left( \frac{3}{4} \times \frac{1}{80} \right)^2 \\ 4 \times 5 &= f \times \left( \frac{3}{80} \right)^2 \\ f &= \frac{4 \times 5 \times 80 \times 16 \times 10}{3^2} \\ &= \frac{60 \times 3}{80 \times 16 \times 10} \end{aligned}$$

Substituting the values of f and t, in the formula:  $V ft$ , we have

$$\begin{aligned} V &= \frac{2 \times 5 \times 60 \times 16 \times 10}{4 \times 80 \times 16 \times 10} \times \frac{60 \times 3}{80 \times 16 \times 10} \\ &= 177.77 \text{ inches, or 14.8 feet per second velocity.} \end{aligned}$$

Then to find the velocity of the lug strap, from the pick ball and vertical levers, we have  $4 \frac{1}{2} : 8 :: 14.8 : 16.3$  feet per second, velocity.

Having found the require velocity of the shuttle to be 80.3 feet per second, and with the total length of the picker stick measuring 29 1-2 inches, we have the following proportion to find the distance up on the stick the lug strap must be placed.

$80.3 : 26.3 :: 29.5 : 9.6$  inches, distance. The distance measured on the loom was 9.5 inches, which practically agrees with the theoretical distance.

### The Shedding Motion.

The shedding operation consists in raising and lowering the shades of the warp in order to allow the shuttle to insert the filling. The work performed in shedding depends upon the speed at which the harnesses pass through the space, the amount of this space, and the weight lifted. As the two harness cams have different lengths of throw, an average of the two will be taken in order to simplify the work. The distance from the treadle fulcrum to the center of the

(Continued on Page 9)



# The Story of Coal Tar

## Introductory.

When we look at a lump of coal it is hard to imagine that this black substance is the parent of innumerable dyestuffs, which in turn give rise to countless hues comprising all the colors of the rainbow.

Chemistry is the key which has unlocked the wonderful store of coloring matters, which lay hidden for ages in the huge beds of coal buried in the very bowels of the earth.

It is also difficult to believe that this same black mineral is the mother of substances like acetanilide, phenacetin and their derivatives, which are so largely utilized as the basis of a great number of patent remedies for the relief of headache. It seems a far cry from coal to headache powders and it is indeed easier to imagine a lump of coal as a producer of headaches rather than as a means of their relief.

The enormous progress and changes which have taken place during the past century, in industry and commerce, are due, to a great extent at least, to the utilization of the energy stored up in coal.

This dead mineral—the remains of an ancient vegetable world—yields us heat, kinetic energy and light, but even this does not exhaust its utility. Chemical science and the art of the color manufacturer, have succeeded in producing from coal, an unlimited series of valuable dyestuffs, and by this means have brought into existence a flourishing industry. Coal tar, a by-product in the manufacture of illuminating gas obtained from coal, is the raw material used for the manufacture of dyestuffs.

The Coal Tar Color Industry, the youngest of the great chemical industries, has within a few decades, developed in a way that is truly wonderful. This brilliant success must be attributed principally, to the intimate connection between factory work and scientific investigation, for in this industry more than in any other theory and practice work together and mutually assist each other.

It is indeed, but little more than 30 or 40 years ago that dyers were entirely dependent upon the so-called natural coloring matters obtained from plants and animals or prepared from minerals, from metals or from earths.

The introduction of the so-called artificial dyes derived from coal tar application is concerned, and instead of these, artificial products are used, which are characterized by a hitherto led to a complete change in the dyeing industry and relegated most of the natural dyestuffs to the museum. To day, the vast majority of coloring matters used as dyes—distinguished from mere paints or pigments—are products of organic synthesis, being in almost all cases obtained by a series of highly scientific processes, from coal tar.

A large proportion of the coloring matters in use for centuries have been entirely abandoned as far as practical unknown beauty of shade and by surprising simplicity of application. The coal tar color industry or the era of artificial dyestuffs may be said to

## Prof. J. E. Halstead, Raleigh, N. C., before Southern Textile Association

date from 1856, when Perkin accidentally discovered the violet dyestuff, mauve, in the course of an investigation having as its object the synthesis of quinine, by the oxidation of aniline. Almost numberless coloring matters have since been produced from coal tar; relatively few have stood the test of time and many of these may possibly disappear from commerce before another half century has passed; but science works indefatigably and enriches us continuously with new and better, with more permanent and beautiful coloring matters and so will gradually succeed in promoting the dyeing industry to the highest state of perfection.

At the outset a distinction was drawn between artificial and natural dyestuffs, the chief reason for this being due to the properties of the artificial dyestuffs first produced. These were mainly much handsomer and brighter, but not so fast as the majority of the natural dyes, and by a somewhat hasty generalization, artificial dyes were at first regarded as handsome but fugitive, a prejudice which for a long time acted adversely on the artificial dyes, and which was only removed on the introduction of the fast Alizarin dyes in the seventies.

Speaking of the tenacity with which prejudice clings, it might be mentioned here that even Logwood and Indigo, two of the fastest dyes known, when first introduced into Europe a few centuries ago, met with violent opposition and their use was even prohibited by law on the ground that they produced loose and fugitive colors, and were corrosive and pernicious drugs.

At the present time we have artificial dyestuffs, some of which are just as fast as, and others even more so than those of natural origin.

Moreover, the problem of the artificial preparation of natural dyes is now partly solved, as shown in the case of Alizarin and Indigotin, the coloring principles of Madder and Indigo respectively. It is now known that no distinctive difference separates the two classes of artificial and natural dyestuffs, as they are almost without exception derivatives of benzene, a constituent of coal tar.

The substitution of artificial dyestuff in place of the natural dyes used for ages in the dyeing industry, is the goal which the coal tar color industry has consistently striven to attain.

The economic importance of this is obvious, because it means the building up of a great industry, and the releasing of vast areas of land for other and more profitable purposes than the cultivation of natural dyes.

Today the use of Madder, employed for centuries in dyeing Turkey Red, has almost entirely ceased, being displaced by artificial alizarin, the actual coloring matter in the madder root; cochineal is little used being replaced by Acid Scarlets; Archil has had to yield to the Acid Reds, whilst camwood, barwood and the red

woods generally, have given way to the Cloth Reds; Turmeric has been displaced by Auramine, Flavine by Tartrazin and so on down the line.

Even in the case of Logwood and Indigo, about the only natural dyes used to any large extent at the present time, a large proportion of Logwood is replaced by Acid and Alizarin Blacks; and finally even vegetable Indigo has been met by a victorious competitor in synthetic Indigo placed on the market in 1897.

As showing the disastrous effect on the consumption of natural Indigo it may be mentioned, that during the past 10 years or so, since the introduction of the synthetic product, the Calcutta and Java crops, the two chief sources of natural indigo, have diminished upwards of 80 or 90 per cent.

In fact, the issue of the struggle between artificial and natural Indigo is no longer doubtful and plant Indigo will in no long time share the fate of Madder and practically disappear from commerce.

From this introduction, it is evident that the modern dyer is chiefly if not entirely, indebted to the chemist, who has by means of chemical researches, practically raised the ancient and empirical art of dyeing to that of a science.

It may be, that some dyers are apt to scorn the value of the information which scientific experiments give them so freely in the various technical books and journals as well as in Schools of Technology. Granted results are obtained to suit their purpose, yet how many could state that their process was carried out in the most rational and economical manner, unless they had availed themselves of such information.

The modern dyer must avail himself of the latest results of scientific research, if he would keep pace with the rapid progress which is continually being made in the art and science of dyeing. Evidently experience and experiment must work hand in hand to produce the best result, in other words, to secure the maximum efficiency and economy. It is essential to possess a practical and scientific knowledge of all works' processes; and it is the aim of Textile Schools like the N. C. A. & M. College, (Raleigh, N. C.), to produce a blend of theory and practice which will be palatable and useful both to the possessor thereof and his future employer.

### Origin of Coal.

When dead vegetable matter decays in the absence of air and under water it undergoes a change similar to, but much more slowly than that which occurs when it is heated; water, carbon dioxide and methane are given off, while the residual matter becomes richer in carbon; this solid residue is known as peat.

Fresh soft peat, unhardened by pressure forms very porous masses, which retain traces of the vegetable matter from which they have been

formed, whereas old hard peat resembles brown coal or lignite; in fact the brown earthy varieties of coal were probably formed from peat.

Grass and wood, the vegetation of primeval seas and similar refuse of all geological periods, must have been subjected to the same changes which they now undergo, that is, under water they formed peat and lignite, which substances preserved for a long time underground and compressed by the new strata formed above them lose all traces of their woody vegetable structure and yield the black dense homogeneous mass known as coal.

That the formation of coal is accompanied by the evolution of carbon dioxide and methane is proved by the fact that these gases are present in coal measures at the present day in a highly compressed condition, and methane (better known as fire-damp) is evolved in enormous quantities in coal-pits, which often produces fatal explosions.

There are many different kinds of coal containing more or less of the hydrogen, oxygen and nitrogen of the original woody fibre, as shown in the following table which gives their average composition compared with that of wood, peat and lignite.

	Carbon	Hydrogen	Nitrogen	Oxygen
Wood . . . . .	50 %	6 %	44 %	
Peat . . . . .	60 %	6 %	34 %	
Lignite . . . . .	67 %	5 1/2 %	27 %	
Cannel Coal . . . . .	86 %	5 1/4 %	8 1/4 %	
Newcastle				
Hartley . . . . .	88 1/2 %	5 1/2 %	6 %	
Anthracite . . . . .	94 %	3 1/2 %	2 1/2 %	

The above table shows that cannel coal contains most hydrogen and anthracite the least, whilst the various kinds of bituminous coals lie between these two extremes.

The classes of coal employed in the manufacture of illuminating gas are confined to those varieties which are bituminous in their nature. Bituminous coals or gas coals have the property not possessed by the anthracites, of softening and apparently fusing, when heated to a temperature below that at which combustion takes place; this fusion indicates the commencement of destructive distillation when both solid, liquid and gaseous carbon compounds are formed.

### Origin of Coal-Tar.

The process of destructive distillation of organic substances such as coal and wood is carried on for several industrial purposes.

The destructive or dry distillation of organic substances is brought about by heating them to a very high temperature beyond the point of decomposition, in a closed retort without the access of air, when the following products are obtained, which are generally classified as

- (i) The dry solid residue
- (ii) The permanent gases evolved
- (iii) The condensed distillate, which always separates into two layers, an aqueous layer and an oily layer called tar.

According to the difference of the original materials, the products of their destructive distillation differ



but, the difference is much greater in the condensed distillate than in either the solid residue or the permanent gases. Tar is a product of very complex and very variable composition, and varies according to the temperature, pressure and duration of the heating, but most of all with the nature of the substance used.

For example, members of the fatty series, like acetic acid and methyl alcohol are found most largely in the products of the distillation of wood, whilst members of the aromatic series, like benzene and naphthalene, predominate almost exclusively in the distillation products of coal.

Since aromatic bodies alone can be used in the manufacture of dyestuffs, therefore coal-tar is the most suitable material for this purpose.

The production of coal-tar is never attempted as a special branch of manufacture, but is nearly all obtained as a by-product in the manufacture of illuminating gas or coal gas; hence coal-tar is often called gas-tar.

On the basis of 10,000 c. ft. gas per ton of coal distilled, the average yield calculated on the weight of coal is about 20 per cent. gas, 8 per cent. coal-tar, 7 per cent. ammonia liquor and 65 per cent. coke. That is, the total gaseous aqueous and tarry distillates amount to 35 per cent. of the weight of coal distilled, but of these products of distillation, only coal-tar contains the aromatic substances which are capable of utilization in the production of dyestuffs.

Practically all artificial dyestuffs are prepared from aromatic compounds, obtained either directly from coal-tar or formed from intermediate products which are themselves prepared from substances present in coal-tar. Even so long ago as 1726 it was noticed that when coal is heated in a closed vessel, an inflammable gas is evolved, which does not lose its illuminating power when passed through water. The first man to apply these facts practically to the manufacture of coal-gas was Wm. Murdoch, a Scotchman living in Cornwall, England. He distilled coal in an iron retort and lighted his house with the gas which he thus manufactured. In 1798 the engine factory near Birmingham, where he was employed was lighted with coal-gas, and in 1802, Murdoch's process was so far

perfected that the large cotton mill of Phillips and Lee in Manchester was lighted with gas. The streets of London were not lighted with gas until 1812, and it was not introduced into Paris until after the peace of 1815.

For a long time after the discovery of illuminating gas, indeed up to about 50 years ago, coal-tar was considered as so much useless refuse matter, and it was such an encumbrance to the manufacturer that the problem of how to get rid of it most conveniently, was most embarrassing to him.

Although benzene was discovered in coal-tar by Hofmann in 1845, the importance of coal-tar was not understood until the epoch-making discovery of Mauve by Perkin in 1856—the first artificial dyestuff prepared from coal-tar—and Magenta by Verguin in 1859, both of which were prepared indirectly from benzene.

Coal-tar has now become not only of the greatest importance to the color manufacturer, but also most valuable to the scientific chemist, as a means of carrying on the investigation of interesting and important bodies, to an extent which would have been impossible but for the introduction of the gas manufacture.

Coal-tar has proved a source, as yet inexhaustible, of new aromatic compounds, from which valuable dyestuffs are now prepared artificially; in fact, at the present time the yearly value of dyestuffs now obtained from the once useless coal-tar amounts to about \$60,000,000, of which Germany produces three-fourths, the remaining fourth being divided amongst England, France, Switzerland and the United States.

As showing the magnitude of the coal-tar color industry the following particulars regarding one of the largest dyestuff manufacturers, may not be out of place; at their works in Germany there are employed over 200 chemists, 150 civil and mechanical engineers, 1,000 office men and clerks, and 8,000 workmen; their 158 boilers produce steam for 386 steam engines of 24,369 H. P., whilst 13 dynamos generate 7,083 kilowatts for 472 motors, 1,336 arc lamps and 20,000 incandescent lamps; their water-works supplies them with 12,000,000,000 gals. water, their gas-works produce 777,

000,000 c. ft. and their ice factory makes 14,000 tons of ice per annum; and to protect this vast property there is a fire brigade with 25 steam fire-engines, 5 miles of hose and 540 hydrants. In this connection it is interesting to notice how history repeats itself in the case of cotton seed—also once an outcast, now a prince—which has given rise to an industry of such magnitude, that even if the cotton plant yielded no lint, it would still be profitable to cultivate for its seed value alone. In Bulletin No. 111, U. S. Dept. of Commerce and Labor, 1911, it is stated "that prior to the introduction of oil mills (26 mills in 1870, 810 mills in 1910,) cotton-seed was considered practically worthless, except for planting. It was for the most part dumped in remote places to rot or was thrown into running streams, practices which in time became such a menace to health as to call for legislative regulation in some states."

In fact, cotton gins were located if possible on nearby streams, so that the cotton seed could more easily be disposed of.

The total value of the crude products (crude oil, cake and meal, hulls, linters) manufactured from cotton-seed amounted to \$142,710,000 in 1910 as against \$2,530,000 in 1874.

Seeing that coal-tar is a by-product in the manufacture of gas, let us take a cursory glance at the

#### Manufacture of Illuminating Gas or Coal-Gas.

When bituminous coal is subjected to dry distillation at a temperature of cherry-red heat, say about 1500-1800 degrees Fahr., a variety of products is formed which are classified as

- (1) Coke (2) Coal Gas (3) Coal-Tar (4) Gas liquor or ammoniacal liquor.

Of these by-products coal-tar is especially important to the color manufacturer, as it is the primary raw material used for the manufacture of dyestuffs. The actual distillation of the coal takes place in closed fire-clay retorts, semi-cylindrical in shape. The average size of a retort is 7-9 ft. long, 15-20 ins. wide, 12-15 ins. high, and each retort is capable of holding a charge of 150-200 lbs. of coal; the rear end of the retort is closed and to the other end a cast-iron extension or mouthpiece is riv-

eted, which carries on its upper side a flange to which is secured an upright pipe which serves to lead the gases generated, away from the retort into a large horizontal pipe called the hydraulic main.

Several retorts, generally a battery of 5 or 7, are heated together in one furnace, and when red-hot, lumps of coal are shoveled into them through the mouthpiece, and the retorts are then tightly closed. The retorts are charged by hand, care being taken to distribute the coal evenly and close them quickly; various attempts have been made to perform this laborious task by mechanical means, but with no satisfactory result.

Coke to the extent of about 65 per cent. on the coal used remains in the retorts and the volatile products of distillation in the form of vapors and gases travel along the upright pipes rising from each retort; these upright pipes (stand pipes) are provided with goose-neck outlets which are connected to and dip below the surface of water in the large horizontal pipe (hydraulic main) placed above the furnace. Those products of the dry distillation which most easily pass from the gaseous into the liquid and solid states, collect in the hydraulic main and are there condensed into liquids, forming tar and ammonia liquor, which are run off through an overflow pipe into a tar well.

The gas, having been freed from the main bulk of tarry matters, etc., contained in it, passes from the hydraulic main, up and down a series of vertical pipes freely exposed to air (atmospheric condensers), where in cooling off a fresh quantity of vapor condenses and deposits some more tar and ammonia liquor, which find their way into the tar well.

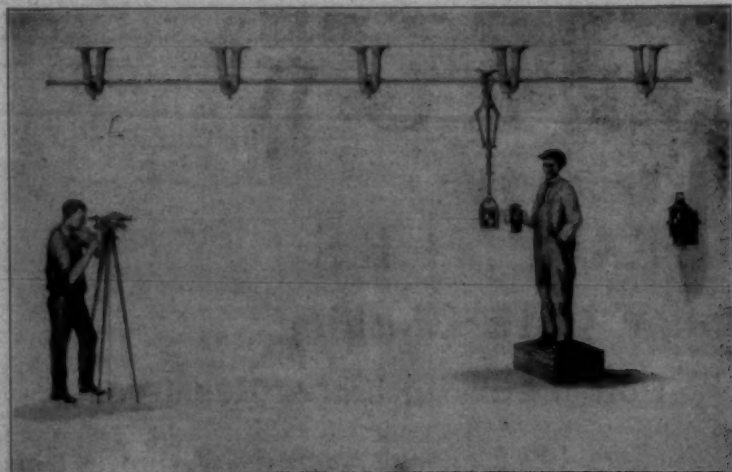
(Continued on Jan. 4th)

A man addicted to walking in his sleep went to bed all right one night, but when he awoke he found himself in the street in the grasp of a policeman.

"Hold on," he cried, "you mustn't arrest me. I'm a somnambulist."

To which the policeman replied: "I don't care what your religion is—yer can't walk the streets in yer nightshirt."—Exchange.

## TWENTY HORSE POWER SAVED IN ONE ROOM



### A North Carolina Mill Writes

"We consider it the best investment we have made in in some time; in one room we saved 20 H. P."

Knoxville, Tenn., Sept. 18, 1912.

KINKEAD MFG. CO., Boston.

Gentlemen:—To say that we are pleased with the outfit would be putting it mildly indeed. We believed our shafting was kept in as perfect alignment as possible without the use of your outfit, but since we have started to use your outfit we are convinced that every mill in this country that is not equipped with an outfit is losing power by shafting friction. We would not take many times its cost if we could not purchase another like it.

BROOKSIDE MILLS,  
H. L. BROWN, Supt.

Free Demonstrations on Your Own Shafting  
WRITE TO-DAY FOR CATALOG C

KINKEAD MANUFACTURING COMPANY  
7 Water Street, Boston, Massachusetts



# Management of Help

## Contest Nearing End.

Next week we will publish the last of the articles contributed to the contest on "Management of Help" and the following week we hope to be able to give the decision of the judges as advance copies of the remaining articles are being sent the judges this week.

Each of the seven judges will be asked to name what he considers to be the best practical article contributed to the contest and also the second best article.

A vote for first place will count one while a vote for second place will count one-half a vote.

If one judge says a certain article is best and three other judges vote for it as second best the vote for that article will be

1 vote for first place = 1  
3 votes for second place = 1½

Total vote = 2½

We expect a very scattering vote as it will be very difficult for the judges to decide between these articles and we doubt if the winner of first prize will receive over two votes.

## Number Forty-Five.

THE management of help in cotton mills is the greatest problem that the mill men have ever had to deal with. The mills can get men with ability, men who are capable, but getting a good manager of help is the question. No matter how able he may be as to his knowledge of the business, unless he is a good manager of help he will make a failure. Some men are natural leaders and their help seem to be eager and willing to do what they are told, trying in every way to give satisfaction, while for others the same set of help may be sulky and ready to quit for the slightest little thing. The secret is in the ability of one as a manager over the other, and some times he is ignorant of the cause. The first great essential in managing help is diplomacy, that great quality so important to any

overseer. Any overseer must be able to come out of close places or go through trying circumstances, and keep his help satisfied and contented.

Learn as much as possible about your help, studying their peculiarities, and you will be better able to smooth over any little friction that may arise. An overseer should not get too intimate with his help. All of this talk about making brothers and bosom friends of your help is one great mistake. An overseer should be kind and considerate, but when he gets to intimate the help will try to take privileges and he will lose control of them. And when an overseer loses control of his help he had better leave them. I do not mean that an overseer is better than his help, nor should he leave the impression that he is better than they are. He must have the greatest respect for them and treat them with courtesy. He must have their respect and confidence. Having the confidence of the help is of great importance. When an overseer's help know that he is treating them right because they know that he will not treat them wrong, then he is in position to run his room successfully. There is one thing that I have noticed with some overseers and that is talking to their help when they have nothing to say. When an overseer goes among his help, talking to them about frivolous matters, then he encourages them to talk among themselves. It is better not to talk to the help on any subject other than business. When you have occasion to speak to an employee let it be brief and to the point, but kindly spoken. When an overseer has to reproach one of the hands about anything, if it is the first time, go to him in a kindly manner, but let him know that you mean every word that you have said. The overseer should be careful not to go into anything blindly. Look through it carefully before you pass your sentence, for you must remember that others are judging your judgment.

Jack Frost.

## Number Forty-Six.

THE successful handling of a large number of operatives is the greatest problem that confronts the textile plant today. Many mills are losing money on account of the failure of the superintendents or overseers to properly manage the help. The system should be founded on the golden rule and should stand like a rock. It should begin

with the superintendent and come on down to the operative. If things go a little wrong the superintendent should try to remedy them and by so doing he will soon gain the confidence of all under his command. Operatives should not be allowed to leave the room in which they work without the permission of the overseer. They should be at their proper places at starting time, both morning and noon. Overseers should be the last to leave the rooms, noon and night.

The overseer should be a man of grit and consider all things well before he makes a decision. When he has decided he should be firm and stand like a rock. He should be kind to the help and after seeing the company safe, he should endeavor to respect their wishes and feelings so far as he is able.

When you tell a hand to do a certain thing, leave him, or her, until they have had time to do it and then go and see for yourself whether it has been done. If it has not been done, get on that hand and give him another chance, and then if he will not do as you say, you may as well have a war with him right then. Make him either do as instructed, or step down and out.

When you are a little short of help, do not get slack in order to hold the rest. If you get slack, Mr. Overseer, your help will get slack with you and your loose pulleys will burn up. There are exceptions and bright ones, but I speak of the great mass of operatives getting slack with you.

If several of your hands ask to be off a certain day try and let them off. But if you refuse and then they stay out anyway, get prepared for them and let them go, for if you take them back they will treat you the same way again.

Keep your machinery in the best possible running condition, well cleaned and oiled. Do not "fly off the handle" if one of your hands talks a little "sassy" to you, but make all under you toe the mark where the work is concerned. Getting help nowadays is easier said than done. Do not consent to take the position that the door of hope, the door of opportunity is to be closed upon your help, for without them we have no jobs. Superintendents should always advocate good schools and churches for their villages. But there are some who have fearlessly denounced crime and wrong-doing and lashed the lion in his liar, who have failed to

lift their voices in support of this noble cause. B. H. W.

## Number Forty-Seven.

THE management of help is quite a problem and something that we ought to give much thought. To begin with we will take up the overseer and see what sort of man he should be.

An overseer should be a man of sound mind and even temper, quick to think and of good judgment. He should know his duties as an overseer and know each machine he has charge of, in order that he may instruct his help so as to get quantity and quality. In other words he should be a practical man and the help will have confidence in his ability. He should be a good judge of human nature and should study his help as he will find that no two are of the same disposition. He should know the nature of each one under him so that he will know how to approach them when he wants something done. We always have several kinds of help. Some are the best, some not so good and others who do not try. Now an overseer should study these people. Our best help may have been in the mill for 20 years, with perhaps, good training. Probably the poorer class of help have not received proper training. Do not "fall out" with this class of help and abuse them, or you may lose some who would otherwise have made good hands if you had gone to them and showed them how to work in the right manner. As for the "don't care" class, you can control them just as easily as the rest, if you go about it right. You have the power to discharge any of the help. When one refuses to try to do better, after being well treated, do not abuse him, just pay him off quietly and let him go, and when he has time to think over the matter he will think the more of you. Do not try to make your help believe that you are a man eater. This kind of treatment will make a class of help that works only when you are in the room. Strive to make your help feel at ease, get their minds on the work and not on the overseer.

Have discipline in your room that applies to all, from second hand to sweeper boy. Treat all alike in this respect and do not think yourself better than your help even though they are under your charge. Remember you also, have a boss. Respect your help and they will respect you. Do not make promises

# W. H. BIGELOW

AGENTS FOR

## ASHWORTH BROTHERS

### Tempered and Side Ground Card Clothing

Tops Reclothed. Lickerins Rewound. Cotton Mill Machinery Repaired.

12 to 18 West 4th St., Charlotte, N. C.

127 Central Avenue, Atlanta, Ga.



to your help that are to be filled at some future date. You cannot tell what will turn up and something may cause you to break your promise. Then the help will lose confidence in you. Wait until the opportunity presents itself, then if you can help some one, do so, and the help will remain contented and always looking forward to something better. I think it is a bad idea for an overseer to tuck his rules up in the room, as it only gives the help something to laugh at. The overseer should be the sign. He should be on his job at all times, seeking the interest of all. Do not look for trouble, but look for those little things that cause trouble. Strive to keep peace and harmony and adjust the little things. Always take time to listen to your help. Everyone is subject to mistakes and an overseer should at all times try to improve. Train your help to pull with you, and first of all be strictly business-like. Be frank with your help, be a man of your word and of few words. An overseer should not step into the room and enter into a discussion with some of the help as to who has the biggest hog in town, or a discussion of politics. Do not boast about what you know or what you have done. Your results will show this. An overseer should at all times stand shoulder to shoulder with the superintendent and be honest, fair and square with everyone.

#### Number Forty-Eight.

**T**HIS is a great problem and all that could be said upon the subject would fill volumes. I do not feel that I can do the subject justice, but will try and say a few words.

In the first place an overseer should be able to gain the confidence of his help, and to gain their confidence he must be truthful with them. Never promise anything until you are ready to grant it. Treat your help kindly and right at all times. You should study human nature as you will find that some help have to be treated differently from others. Never show partiality among the help. Have no pets. If you have rules, see that all obey them. Do not let a good hand break the rule and force a bad hand to obey it, but require them all to observe the rule. Have strict discipline in the room at all times. Do not allow the help to leave their work and wander about, talking among themselves. Teach them that they come to the mill to work, not to talk. If possible, always promote your older help to the better paying position. Never get help from another place to fill these positions if there are capable ones in your own room to fill them. This will encourage the help to stay with you, for they see that there is a chance for promotion, having a tendency to make them do better work. Often I see overseers with a frown on their faces. Overseers should not go into the room talking like they are angry, nor let the help see that they are angry. It does not cost any more to smile than it does to frown.

I think that all overseers should be teachers among their help, just as there are teachers in the school room. They should teach each and every hand to do their work the best and easiest way, instead of letting them do it any old way. Impress on the minds of the help the utmost importance of doing the work in the

right way, not slighting it in the least.

Show the hands that you have the greatest interest in teaching them right and the best time to teach a hand the above lesson is when he first begins work. I want to say that an overseer should never go around whistling at the help or allow it to be done. If they are neglecting their duty, go to them and speak to them about it.

A. P. M.

#### Number Forty-Nine.

The question for discussion, the successful management of help, is a very complex one and one with which we are all standing face to face. This is proven by the fact that we see this mill and that one building substantial churches and maintaining free schools solely for the operatives. They also build Y. M. C. A. buildings, equipped with reading rooms, baths, etc. They are all to be commended for this, because, for the operatives, it is a diversion from work. It shows them the bright side of life and tends to elevate their morals. It binds them closer together and makes a more contented set of people.

In the first place a good manager of help should be a man of good morals. He should set the help a good example, by not doing this and that and other things, which are immoral because mill hands are the greatest people on earth for imitating others. Take a drink, or play a game of cards with one of your number and see if they do not take it up at once and become very bold about it. Pretty soon you will find that some of them have been to the police court for gambling on Sunday. Probably his next door neighbor does not care to live near such a rowdy and what happens? Sooner or later you will lose a good family. On the other hand, do not tolerate such conduct and be careful about employing this class of people. Always employ a man with a few questions before employing him, and he will understand at once how to govern his future actions. If he gets into bad habits he will stay very shy of you. If you are careless about your work and let anything go, your help will do likewise and things will soon go from bad to worse. Finally you have to take some action and endeavor to correct it all in a day. Every one knows the result.

Be very careful about giving your instructions. Be sure you are right then go ahead, but do not let your temper sidetrack you.

Superintendents, overseers and second hands should be friendly and work together in perfect harmony. It is of no use to buck against your superior if he is a true business man. Better just get out before you have to. Meet your help with a pleasant face regardless of what is to be said or done. When you meet them speak to them invariably, for there is no class of people in the world who had rather be recognized than the operatives. Always try to appear on the bright side of life. When a frame or set of looms gets to going badly, inject a little humor into the situation and it will put the operatives in a better way and work goes on with renewed energy, soon taking a turn for the better. Make a rule which you are firmly convinced is practical and then be sure to carry it out.

A good manager must be a good judge of human nature. The same prescription will not act alike upon all. In one locality you may handle help in a certain way, while in some

other place you may have to handle them in an entirely different manner. There may be one with whom you have to deal with very sternly, while working at this one's side, there may be one who requires very gentle treatment, still further on there is probably one, who if you will brag on a little, will almost hurt himself working. All of them will do better if you change your tactics just a little occasionally. Avoid changing your help as much as possible, but if a radical change has to be made, a little explanation will satisfy most of them. On the other hand, if you make no explanation, the ones affected will probably become disgruntled and if they do not quit they will become very unsatisfactory. If any of the help, large or small, approach you with a complaint, always stop and listen. But if they are working directly for some one just politely refer them to the right one. They are not likely to bother you again with trivial matters.

If you are expecting to raise the wages of some of your help, do not wait until you are forced to do so by several of your best families. You may succeed in getting some of them back, but at the same time you are handing a wedge to some of your help and they seldom fail to use it. Always try to improve your work and better the condition of the help. Good running work makes better quality of goods at a lower labor cost and makes a better set of help. Have a good system that covers everything if you want to be a success. Have a fixed time for your help to do certain things and see each day that they do so. If you do not attend to this, tomorrow they will be a little tardy, later still the next day and finally will forget it altogether. No good help objects to a good system after it is once in vogue and they will do their work better without being watched so closely.

Detail.

#### Number Fifty.

**T**HE management of help is a very pertinent subject along the lines of our business world. It is a work in which none are perfect, though some are able to manage the situation better than others. To be a competent manager of help requires courage and many other traits of moral character. Managing help is directing men and women, boys and girls, from a humane and business point of view and requires much careful thought and vigilance.

In all work there are a number of persons engaged and where concerted action is required, there must necessarily be one to direct and manage the others, and the work in hand. And the more thoroughly this manager understands the work, the more competent he will be to manage the business. To be a success he should be very affable and amiable, alert, and at all times wear a smile and good clothes. Try to make the very best possible impression on the minds of the help, and teach them to respect you by first respecting them. It is an utter impossibility to get the best results unless the help respects the orders and they will not respect the orders unless they respect the superintendent and overseers who give the orders. When you give orders insist that they be carried out and that the work be performed as you have instructed. Hold yourself somewhat in reserve while at work, but outside the mill be one of the boys in all social relations. Do not

let your help dictate to you; you should be the one to do the dictating. It is all right to receive suggestions from some of the help, if they are worthy, as it will do no harm, and very often it will be helpful.

Treat least and most undeserving in the same manner that you treat the best hand you have. Do not have any pets, but always stand ready to show your appreciation to any and all, for services well done.

Reader, if you are a manager of help, you have a very responsible position and by no means always a pleasant one. You are a dominant factor and your management figures very prominently in the success and profit of the company. The manager should not be overexact-ing, but should manage to get the maximum quantity and quality, at a minimum cost. This is where and how the profits of the company are figured very largely. Do not understand me to mean that the help should be paid the lowest price for their work in order to accomplish this. The man in charge should drill his help to such a state of efficiency that he may exercise the fullest capacity of the help, thereby getting the highest production in quantity and quality, giving rise to a fair profit.

The man at the helm should be a man of good judgment, sober and virtuous. He comes in contact with our men and women, boys and girls and occupies a position of special trust and one that will betray this trust is not fit to manage help.

The superintendent or overseer should go through the room with and air of freedom, giving orders and directing the help. Do not watch your help from a strategic point. One may want to see all that is going on as near as possible, yet there are things which you do not want to see. There are times when we get the fat in the fire by attempting to adjust matters at an improper time. Under such circumstances it would be a better plan to let things rock along for the time being, perhaps later you may be able to adjust the matter in a way that will not incur ill feeling and avoid the loss of help.

We should strive to encourage and keep the help contented at all times. Never fail to carry out all promises you make. You should not make a promise unless you see your way clear to make it good. Keep your machinery in good running order and make all things as neat and attractive as possible. Never overlook cleanliness, go after the little things as well as the larger ones. Do not go after your help and work in a helter-skelter way. Try to be the same every day, for if you are not the help will soon learn when you mean business and when you do not, and they will work accordingly.

Yes, this is a great subject and volumes could be written on it, and there are many ups and down along the way of managing help as only one knows who has had the experience.

We should not get discouraged. "Faint heart never won fair lady." Under the dark cloud there is a silver lining. If indeed you are a successful manager, possessing that natural executive ability to manage, then you possess a very valuable asset. You are one of a great throng of executors, one to lead and direct affairs.

Some men have the necessary knowledge, but cannot put it into execution, so of what benefit is it to

(Continued on Page 8.)



# THE SEYDEL MANUFACTURING CO.

JERSEY CITY, N. J.

Sizings and Finishings  
PHILADELPHIA

FOR ALL TEXTILES

Soaps and Softeners  
ATLANTA

## The Arabol Manufacturing Co.

100 Williams Street, New York  
MANUFACTURERS OF

Sizing, Softening, Finishing, Weighting Compounds

We make practical demonstrations of our goods, free of charge. If you have any trouble, write us.

CAMERON McRAE Southern Sales Agent GREENVILLE, S. C.

## Danker & Marston

BOSTON, MASS.

GUM TRAGASOL for Warp Sizing.  
DANAMAR Softener, replacing Tallow

## A. Klipstein & Company

129 Pearl Street, New York it y

SOUTHERN BRANCH:

17 EAST FOURTH STREET CHARLOTTE, N. C.

SOLE AGENTS

Society Chemical Industry

BASLE, SWITZERLAND

VAT COLORS

Ciba Violet

Ciba Blue

Ciba Red

Ciba Yellow

Ciba Green

Ciba Grey

Synthetic Indigo

All kinds of Sulphur Direct and Basic Colors for Cotton.

Zinc Dust, Bi-Sulphite of Soda, Sodium

Sulfide, Caustic Soda.

All kinds Sizing and Finishing Materials, Potato  
Starch, Dextrine, etc.

### Management of Help.

(Continued from Page 6.)

them? They will more than likely fall down on the job. This is a bad state as the world wants men who not only know things but men who can do things as well.

K. M. K.

### Number Fifty-One.

THE writer of this article is an old mill operative and naturally takes a great deal of interest in the question of managing help.

However, I want to say in the beginning that I have always been only an operative. I have never held even as high a position as section hand and never expect to hold such a position. Therefore I am writing this from the standpoint of an operative and not from the standpoint of an overseer. To begin with I am going to tell some of the experiences I have been through with and tell of some of the men I have worked for. About 18 years ago I had just begun my career as a mill operative in the weave room of a large South Carolina mill (I am now in another state). It was my lot to become associated with a young man who was at that time a striker, that is he was a sort of helper to the loom fixers. This young man was the son of a widow, who was honest but poor. While she was not able to give her two children a good education, she taught them to be kind and courteous to those with whom they came in contact. This young man, in time, got to be loom fixer and later was promoted to the position of overseer. My recollection of this young man is that he was always kind and accommodating to those under him and while it was his duty to "jack me up" occasionally for some of my shortcomings or poor work, he did it in a way that was gentlemanly and in a way that made me strive to do better. He was a moral young man, a regular attendant at church and Sunday school. So far as I know he was always honest with the help, never making them promises that he could not keep. At the same time he required them to be honest with the company by doing good work and working regularly.

He studied at night and acquired a fairly good education and is now superintendent of that same mill, and has been for several years past. That mill has now 40,000 spindles and is one of the most successful in the State. A very large per cent of the help who were with him 18 years ago, are still with him and they are one of the most contented set of help to be found anywhere. This is one of the kinds of managers of help that I have worked for. I, having a desire to see something of the world, left the above mill and went to another. Here I was under a man who was kind and generous to the help, but who was not any too loyal to the company. He was also entirely too intimate with some of his women weavers and it was not a great while before he was mixed up in some transactions that caused him to lose his job. He is now an old man, his once raven locks have faded under the frost of time and he is now earning his daily bread by the sweat of his brow, for he is fixing looms for a living. In summing up the characteristics of this last mentioned man I will say that he was not even a success from the managing standpoint, for while he was kind and generous to us, we soon learned his weak points. We would allow bad

work to get by us that we would have stopped, if we had not known how to manage the overseer.

Some years later I was working in a large card room, and as I happened to be a frame hand as well as a weaver, it fell to my lot to be under the second hand, who must have been fed on rocks, scrap iron and gun powder. If he was ever in a good humor or spoke a kind word to anyone, I do not remember it. The overseer was one who believed in leaving every thing to the second hand, so if the room was managed at all it was managed by the second hand. The outcome of this kind of treatment was that the help followed the example of the second hand and stayed mad all the time. They would shield each other in any kind of meanness, which they felt like doing, and we all felt that we were doing right to make things just as unpleasant for him as we possibly could. When this fellow would see us doing something that might not be right, or what he regarded as wrong, instead of talking to us like we were human beings, he would curse and abuse us, sometimes docking or discharging us. This caused everyone to be dissatisfied and continually changing. I remember that sometimes, after he had cursed and abused the help, they would take revenge by dropping accidentally (?) something into some part of a machine, which would probably cost the company about \$25. This, of course, was wrong on the part of the help, but it was human nature, and regardless of right or wrong, those who have charge of help have to contend with human nature, and he that is wise enough to conduct himself so as to bring out the good in his help and prevent the bad points from coming out, is, in my opinion, the best manager of help. This man I have been referring to, so far as knowing machinery was concerned, was capable of being the superintendent of the mill, but he was such a poor manager of help that when help became so hard to get, he lost out completely, and the last I heard of him he was running a pair of frames for a living.

I have been connected with a cotton mill, either directly or indirectly, since my early childhood. And looking back over my past, I can see some things now that I could not see or appreciate at the time that they were transpiring. I once worked at a mill where there were good overseers, or at least they would have been good overseers if they had been allowed to run their rooms without interference from the office. However the superintendent was one of those sort of men who thought he knew it all, and when he saw fit to make any kind of change, he simply gave orders to have it done without consulting any of his overseers on the subject. This often got the mill in the hole, then when the overseers would try to enforce their rules we did not feel like we wanted to obey them, we would go to the superintendent and he would take the matter up with the overseers, with the result that we did pretty much as we pleased. It is needless to add that this mill, after a long unsuccessful career, went into bankruptcy and was sold for its indebtedness.

In summing up what should be the characteristics of the men suited to manage help, I would say that they should be governed by kindness, justice, firmness and morality.

G. C. O.



### Analysis of Loom Power.

(Continued from Page 3)

treadle plug was 9 1-2 inches, and to the harness strap was 23 1-8 inches. The throw of the cam was 1 1-2 inches. Then to find the distance through which the yarn passes in shedding, we have the proportion, 9 1-2:23 1-8::1 1-2:7.3 inches, distance.

The velocity with which the yarn rises is as follows. The cam shaft makes 80 R. P. M., so that 1 revolution equals 1-80 minute. Being 120° crank rest cams, the rise requires 1-3 of a revolution of the cam, or 1-240 minute, which equals 1-2 period. The whole period would be 1-120 minute or 1-2 second.

Substituting in the formula for harmonic motion, we have

2 Pi

= 1-2 second. (Pi=3.1416)

Sq. ft. of n

N=16 (Pi)<sup>2</sup>

The weight starts 3.65 inches from the center of its path. Substituting the known values in the formula for velocity

V=Square root of (na)<sup>2</sup> where a is the distance we have

square root of [16 (Pi)<sup>2</sup> (3.65)<sup>2</sup>]=

5.87 inches or 3.82 feet per second.

The weight to be lifted through the space depends on the number of ends in the warp and the amount of tension on the same, also the weight of the harnesses. The tension on the whole warp was obtained by means of a friction with a lever arm attached, and a spring balance. The regular let-off motion was first taken off, and the friction placed on the smooth cylindrical part on the end of the warp beam. The lever was placed horizontally, and the spring balance attached to the lever and the floor. The friction on the warp was increased by means of a bolt, until the correct amount of tension was obtained, which was indicated by the feel and appearance of the cloth. The spring balance was run out on the lever until it kept the beam about horizontal. The arm was jerky, due to beating up, and the highest and lowest points were read on the balance an average taken, which was found to be 7.5 pounds. Taking the diameter of the warp beam and the distance of the spring balance on the lever, the tension on the entire warp was found to be 28.57 pounds. The harnesses weighed 5.63 pounds, so the total number of pounds to be raised was 34.2 pounds.

Substituting the known values in the formula:

Work= $\frac{1}{2}$  MV<sup>2</sup> we find the amount of work required for shedding is 7.44 foot pounds per second, or 4464 foot pounds per minute. This divided by 33,000 gives .0135 horse power required for shedding.

The shape of the harness cam to be used in the shedding is very important. The strain on the warp during the weaving is directly proportional to the distance passed through, and directly to the square of the velocity, so by having less time for rest and more for grade, the strain on the yarn is reduced and permits a higher speed of the loom. The usual custom is to use

90 crank rest cams for narrow looms, 120 crank rest for medium widths, and 180 crank rest for broad looms

### The Sley.

The power required by the sley depends on the weight of the sley and the speed at which it travels. The weight in this case was estimated at 40 pounds. The velocity was figured from the number of picks per second and the length of stroke which was 5 1-2 inches. The travel of the sley for every pick was 2x5 1-2 or 11 inches. 160 picks per minute equals 2 2-3 picks per second, so that the total travel of the sley was 11x2 2-3=29.26 inches or 2.44 feet per second, velocity. Work= $\frac{1}{2}$  MV<sup>2</sup>. Substituting the values, we have 3.7 foot pounds per second, or 222 foot pounds per minute. This divided by 33,000 gives .0067 horse power required for the sley.

Summing up the horse power for the three operations, we have

.1600 H. P. for picking, which is 88.8 per cent. of the total power required.

.0135 H. P. for shedding, which is 7.5 per cent. of the total power required.

.0067 H. P. for the sley, which is 3.7 per cent. of the total power required.

.1802 H. P. Total for the loom.

The take-up motion was not made a separate calculation, as the arm is on the sley sword, and the small amount of power required is taken care of by the sley.

The number of looms per horse power is found by dividing .1802 into 1 horsepower, which gives 5 1-2 looms. In a similar manner, the horse power for the different operations may be calculated for any width loom, and any speed, if the dimensions can be obtained.

### Didn't Care For Him.

Little Eleanor's mother was an American, while her father was a German.

One day, after Eleanor had been subjected to rather severe disciplinary measures at the hands of her father, she called her mother into another room, closed the door significantly, and said: "Mother, I don't want to meddle in your business, but I wish you'd send that husband of yours back to Germany."

—Ladies' Home Journal.

### Two Hits to Spare.

The late Colonel Rossington, of beloved memory, used to tell a story of a baseball game played in Topeka once between the married men and the bachelors.

A man named Flood came to the bat. The pitcher put over a straight one and Flood knocked the ball over the fence.

Instead of starting for the first base Flood braced himself and stood stock still.

"Run, you idiot!" screamed the spectators. "Run! Why in blazes don't you run?"

"Run?" calmly queried Flood. "What would I run for? I have got two more clouts at it."—Exchange.

## U. S. RING TRAVELER CO.

AMOS M. BOWEN, Treas.

PROVIDENCE, R. I.

MAKERS OF STANDARD

SPINNING AND TWISTING TRAVELERS  
OF EVERY DESCRIPTION

## THE BEST LUG STRAP

HAS HAD UNPRECEDENTED SUCCESS  
OVER 400 MILLS ARE USING

IVEY'S WOODEN LUG STRAP

We make the  
Best Picker Sticks

Improved  
Leather Covered Binders

IVEY MANUFACTURING CO.

HICKORY, NORTH CAROLINA

A. H. Washburn, President

F. H. Washburn, Treas. & Manager

## WASHBURN PRESS

(RAY PRINTING CO.)

Commercial, Halftone and Color Printing

Engraving, Embossing and Lithographing

BLANK BOOKS AND SPECIAL RULED BLANKS  
MADE TO ORDER

28 West Trade Street  
Phone 342

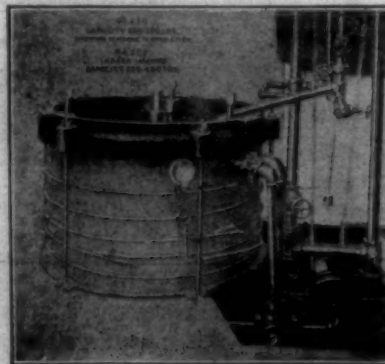
Charlotte, N. C.

## Economical Cotton

## Dyeing and Bleaching

In the Psarski Dyeing Machine

Saves Labor  
Saves Dyes  
Saves Drugs  
Saves Steam  
Saves Water



Saves  
Fibre



Sulphur—Developed—Vat Dyes  
Done Equally Well

RAW STOCK DYEING—The cotton goes to cards in as good condition as directly from bales. Is not rolled into balls and strings.

BLEACHING—Bleached and washed PERFECTLY CLEAN—FREE FROM CHLORINE OR ACID. 3 1/2 hours to batch. Is not pounded and twisted into practically waste.

SKIN DYEING—No Boiling Out—No Tangles—Yarns are left smooth and in perfect condition for winding, knitting, etc.

HOSIERY—Recommended size of machine does 300 pounds to batch, SULPHUR OR DEVELOPED BLACKS. It is not Roughed—No Singeing required—No Sorting—No Damaged.

15 to 20 per cent Saving in Drugs

The Psarski Dyeing Machine Co.

3167 Fulton Road

CLEVELAND, OHIO

WILLIAM H. HANCOCK  
374 Newport Avenue  
Milwaukee, Wis.

P. O. BRIGHT, Agent  
118 Ocean Avenue  
Atlantic City, N. J.



# SOUTHERN TEXTILE BULLETIN

Offices: Room 912 Realty Building, Charlotte, N. C.

Published Every Thursday by  
**Clark Publishing Company**

**DAVID CLARK**  
Managing Editor

## SUBSCRIPTION RATES

One year, payable in advance.....	\$ 1.00
Other countries in Postal Union.....	2.00
Single copies .....	.10

Contributions on subjects pertaining to cotton, its manufacture and distribution, are requested. Contributed articles do not necessarily reflect the opinion of the publishers. Items pertaining to new mills, extensions, etc., are solicited.

## ADVERTISING

Advertising rates furnished upon application.

Address all communications and make all drafts, checks and money orders payable to the Clark Publishing Company, Charlotte, N. C.

Entered as second class matter March 2nd, 1911, at the post office at Charlotte, N. C., under the Act of March 3d, 1879.

THURSDAY, December 21

### Small Edition Next Week.

Those connected with the publication department expect to take a partial Christmas week and this journal will appear with only half of its usual number of pages. That edition will contain very little except the personal and mill news and the remainder of the contest articles on "Management of Help."

### Directory as Premium.

For some time we have been offering the Jan. 1st, 1912, edition of the Directory of Southern Cotton Mills as a premium with a year's subscription to the Southern Textile Bulletin and have also been offering it to old subscribers who paid for one year's renewal.

We feel that this is larger premium that we are justified in giving and we expect to discontinue the offer at an early date.

This notice is given in order to permit old subscribers to take advantage of the offer before it is withdrawn and obtain a copy of the Directory by paying \$1.00 to extend their subscription one year.

### The Year 1911.

As the year 1911 nears its close it is interesting to look back at the path of the cotton manufacturing industry during the past twelve months.

Seldom has there been a year during which there has been a wider variation in values and yet the drop has been to a very large extent gradual. While the decline in prices has been heavy the mills have suffered less, from the depreciation than ever before because very few of them entered the present year with stocks of goods and very generally they refused to operate except upon actual orders.

The year 1911 was ushered in with spot cotton both in New York and the South at 15 cents and to-day we find New York spots at 9.45 and mills buying cotton freely in the South upon a 9 cent basis.

Allowing for 15 per cent. waste 15 cent cotton represents in the goods 17.64 cents while out of 9 cent cotton it represents only 10.59 cents or in other words the real cost of cotton to the mills is more than seven cents less than on Jan. 1st, 1911.

This decline has been brought about by a record breaking crop of approximately fifteen million bales which was the logical result of a record breaking acreage planted and an unusual season.

The high prices of the previous year caused the Southern farmer to over estimate his ability to hold the price and he planted all his spare land and used an unusual amount of fertilizer which with fine weather resulted in an enormous yield.

With the decline in price of cotton has come also a decline in the price of goods which has left the mills only slightly more margin than was theirs at the higher figures but a purchasing movement has started and very few mills can be found today without orders for sometime ahead and a number are now sold up to the early part of 1913.

The return of part of our Manchurian trade has largely assisted in filling the order books of the Southern mills and more business is expected from that source after the new year.

The following is a comparison of the current values that prevailed on Jan. 1st last with those of today:

Print cloths, 28-in std.	3 3 4	3 1-8
Gray gds, 39-in. 68x72	5 3-4	4 3-4
Gray gds, 38 1-2 in std	5 1-8	4 1-8
Brown drills, stds....	8 1-4	7 1-2
Shtgs, south. std....	8 1-4	7 1-4
3-yard .....	7 1-2	7 -
4-yard 56x60....	6 1-4	5 3-8
Denims 9-oz. ....	14 1-2	12 1-2
Tickings, 8-oz. ....	13	12 1-2
Std. fancy prints....	5 1-2	4 3-4
Std. gingham ....	7	6 1-4

While we always have pessimists who claim that business is bad and we recognize the fact that no big profits can be made at today's prices, it is easy to see from the above figures that the decline in goods has not equalled that of cotton.

From any standpoint the year 1911 has brought improvement to the cotton manufacturing industry.

### Shorter Hours.

Raleigh, N. C.—There are being mailed from the office of the State Department of Labor and Printing to all the manufacturing plants in the State copies of the State labor law as amended at the last session of the Legislature and effective January 1, 1912. This amendment reduces the hours of labor from sixty-six a week to sixty a week. Otherwise the labor law of the State is the same that has been in force since the 1907 session of the Legislature.

### Sustaining Price of Cotton.

The Helms-Willis Furniture Co. in order to encourage business, is offering 10 cents per pound for cotton in exchange for furniture. This is considerably above the market price.—Rock Hill Record.

### Will Test Quarantine Law.

Suit has been brought by Neuberger & Levy, of Meridian, Miss., cotton dealers, against the Alabama, Great Southern and New Orleans and Northeastern and the Pelzer Manufacturing Co., of Pelzer, S. C., for alleged failure regarding delivery and acceptance of 104 bales of cotton which the railroad returned claiming that under the laws regulating shipments of cotton from boll weevil states it could not forward the cotton to Pelzer. It is claimed that this suit will test the law covering this point.

### "H. & B." Increases Capital.

The Howard & Bullough American Machine Co., Ltd., cotton machinery builders, Pawtucket, R. I., which has been working under an English charter is now re-incorporating under Maine laws with a capital of \$3,000,000. The new firm name will be H. & B. American Machine Co. Charles E. Riley will be president; E. R. Richardson, treasurer, and E. L. Martin, secretary. There will be no change whatever in the management.

This shop builds the English line of machinery as made by Howard & Bullough, Ltd., Accrington, England

### Receiver Is Named For Warehouse Co.

Greensboro, N. C.—The American Warehouse Company, of the Spray corporation has been placed in the hands of a receiver. J. L. Clement was made temporary receiver. The defendant is given until January 2 to show cause why the receivership should not be made permanent. The litigation involves two million dollars. Complaint was filed by creditors and alleges that because of a factional war between the stockholders of the corporation, headed on one side by Marshal Field Company, of Chicago, and J. P. Morgan and Duke interests on the other, the solvency of the corporation has grown desperate and such as to jeopardize the interests of other creditors. The Marshal Field Company is creditor to the extent of \$415,000. The unsecured indebtedness is said to be \$300,000. No authoritative statement of the liabilities and assets has been made.



## PERSONAL NEWS

J. T. Phillips has accepted a position at Greer, S. C.

R. W. Smith has moved from Kings Mountain, N. C., to Lowell, N. C.

J. G. Greenlee is erecting machinery in the South for Saco Pettee Co.

John Thorp is now agent of the Washington Mills, Fries, Va.

Jas. A. Thompson, of Sycamore, Ala., has accepted a position at Eufaula, Ala.

J. I. Painter, of Clinton, S. C., has accepted the position of second hand in spinning at Whitmire, S. C.

J. A. Rooks, of Greensboro, is now fixing looms at the Calvine Mills, Charlotte, N. C.

J. T. Tate, of Belmont, N. C., is now running a section in spinning at Tuxedo, N. C.

S. W. Cansler, of Bessemer City, N. C., has accepted the position of roller coverer at Draper, N. C.

V. V. Kendrick, of Sylacauga, Ala., has accepted the position of second hand in carding at Draper, N. C.

W. B. Morgan has resigned as overseer of weaving at the Locke Mills, Concord, N. C.

Martin Blankenship of Talladega Ala., is now overseer of spinning at Sycamore (Ala.) Mills.

J. A. Kirkpatrick, of Goldville, S. C., has accepted the position of master mechanic at Warrenville, S. C.

C. E. Rikard, of Batesburg, S. C., will be overseer of cloth room at the Oakland Mill, Newberry, S. C.

C. T. McNeely has accepted a position with the Anderson (S. C.) Cotton Mills.

S. W. Patterson has accepted the position of overseer of weaving at Poulan, Ga.

John Church has accepted a position with the Ivey Mills, Hickory, N. C.

S. A. Crutchfield has resigned as overseer of carding and spinning at the Pilot Mills, Raleigh, N. C.

W. H. Jones, formerly of Clinton, S. C., will be overseer of carding at the Oakland Mills, Newberry, S. C.

J. G. McKinney is now fixing looms at the Woodside Mills, Greenville, S. C.

C. A. Deal has been promoted to overseer of spinning at the Pilot Mills, Raleigh, N. C.

S. D. Stokes has been promoted to overseer of carding at the Pilot Mills, Raleigh, N. C.

H. R. McGown has accepted the position of master mechanic at the Springstein Mills, Chester, S. C.

J. A. Statum is now superintendent of the Argonaut Cotton Mills at Covington, Ky.

A. Noblett has accepted the position of overseer of weaving at the Norris Cotton Mills, Catechee, S. C.

C. W. Lee has been promoted to second hand in spinning at Tuxedo, N. C.

H. A. Childers, of Caroleen, N. C., has accepted the position of second hand in spinning at night at Tuxedo, N. C.

J. J. Edwards, of Hampton, Ga., has accepted the position of overseer of twisting and winding at Bibb Mfg Co., No. 2, Macon, Ga.

N. W. Garner has resigned as overseer of weaving at the Clinton (S. C.) Cotton Mills, to accept a similar position at Goldville, S. C.

Frank Thompson, of Alexander City, Ala., has accepted the position of overseer of spinning at Bon Air, Ala.

G. R. Murphy has resigned as overseer of carding and spinning at the Pomona Mills, Greensboro, N. C., to become superintendent of the Asheville (N. C.) Cotton Mills.

CARDS,  
DRAWING,

COTTON  
MILL MACHINERY

SPINNING  
FRAMES,

MASON MACHINE WORKS

TAUNTON, MASS.

EDWIN HOWARD, Southern Agent  
Charlotte, N. C.

COMBERS,  
LAP MACHINES

MULES,  
LOOMS.

M. L. Copeland, of the Watts Mill, Laurens, S. C., was in Charleston, S. C., on business last week.

B. H. Hardee, of Columbia, S. C., has accepted a position as second hand at the Springstein Mills, Chester, S. C.

D. C. Leonard, of Spartanburg, S. C., has accepted the position of master mechanic at the Oakland Mill, Newberry, S. C.

L. C. Martin, of Laurens, S. C., has accepted the position of overseer of carding at the Pomona Mills, Greensboro, N. C.

J. B. Floyd, of Greenville, S. C., has accepted the position of overseer of spinning at the Elk Mills, Dalton, Ga.

Ed. Ray of Anderson, S. C., has accepted the position of overseer of weaving at the Brandon Mills, Greenville, S. C.

Clifford Barnes, of the Fulton Bag and Cotton Mills, Atlanta, Ga., will be overseer of weaving at the Oakland Mills, Newberry, S. C.

W. G. Reynolds, formerly of Albemarle, S. C., has accepted the position of superintendent of the Jennings Mill, Lumberton, N. C.

J. B. West, formerly of Helena, Ark., is now superintendent of the Panola Cordage Co. at Batesville, Miss.

J. B. Bailey, of Catechee, S. C., has accepted the position of overseer of weaving at the Williamston (S. C.) Mills.

E. B. Brown has resigned as superintendent of the Klothe Mills, Kings Mountain, N. C., to take effect January 1st.

A. F. Fox, from Avondale, Ala., has accepted position with the Jackson Fiber Co., of Bemis, Tenn.

O. S. Prince, from Columbus, Ga., has accepted position as overseer of cloth room with the Alexander City (Ala.) Cotton Mills.

Robt. Pope has been promoted from second hand to overseer carding at the Highland City Cotton Mills, Talladega, Ala.

W. B. Grant has resigned as card grinder at Sycamore, Ala., to accept position as overseer carding with the Marble City Mills, Sylacauga, Ala.

J. M. Elliott from the Marble City Mills, Sylacauga, Ala., has accepted position as card grinder with the Sycamore (Ala.) Cotton Mills.

Robt. K. Wilson has resigned as overseer carding at Sycamore, Ala., to accept position with the Dwight Mills, of Alabama City.

A. E. Collier has resigned position as section hand in spinning with the Chinnabee Cotton Mills, of Talladega, Ala., to accept similar position at Sycamore, Ala.

E. W. Everett has resigned as master mechanic at the Alexander City (Ala.) Cotton Mills to accept similar position with the Wylie Mills, of Chester, S. C.

C. D. Goodroe has resigned as overseer of carding at the Highland City Cotton Mill, of Talladega, Ala., and has taken charge of carding at the Sycamore Mills.

W. L. Ellis has resigned as overseer winding at the Chinnabee Cotton Mills, Talladega, Ala., to accept position as overseer spinning with the Highland City Mills of the same place.

OVERFLOW PERSONALS PAGE 16



CAPACITY 1000 POUNDS LINT PER HOUR.

## "IT WORKS ADMIRABLY"

"THE BEST SOLUTION OF THE PROBLEM OF CLEANING - OPENING - BLOOMING - OF COTTON"

SLATER MANUFACTURING COMPANY

Pawtucket, R. I.

Sept. 25th, 1911.

Empire Duplex Gin Co.  
68 William Street, New York, N. Y.

Gentlemen: We received your C. O. B. Machine, and put same in operation, and find that it works admirably. From what we have seen up to date it seems to be the best solution of the problem of "Cleaning, Opening and Blooming" of cotton in the Picker room that we have yet found, particularly for Egyptian or any compressed cotton. It puts the fiber in such beautiful shape for the action of the pickers and cards that we are satisfied that those machines are able to do their work much better. We are glad to see improvements being made in the Picker Room end of the cotton mill, as it seems that all attention in the way of improvements in the last decade have been in the finishing processes of the mill. We wish for you every success.

Yours very truly,

SLATER MANUFACTURING CO.  
Wm. H. Harris, Treasurer.

MANUFACTURED BY

EMPIRE DUPLEX GIN COMPANY, 68 William St., New York



## MILL NEWS ITEMS OF INTEREST

**Trion, Ga.**—Auditors have been at work on the books of the Trion Mfg. Co. and expect to make a report this week.

**Woodruff, S. C.**—The W. S. Gray Cotton Mills will install six additional cards and 2,400 spindles, which they have purchased from the Mason Machine Works.

**Pinewood, Tenn.**—The Pinewood Cotton Mills are installing a dam for the generation of electric power and will resume operation about March, 1912.

**Rockingham, N. C.**—Edwin Howard, Southern representative of the Mason Machine Works, has sold four additional spinning frames to the Hannah Pickett Mills.

**Newberry, S. C.**—The Oakland Mill expects to begin operation on Jan. 1st. It will start with 20,160 spindles, 542 40-inch looms on 64x64 5.15 goods.

**High Point, N. C.**—The High Point Silk Mill is now building their 124x144 foot addition to their plant here. This structure is for the purpose of holding 100 broad silk looms which will be installed by the firm.

**Egan, Ga.**—The Piedmont Cotton Mills will soon have completed their additional buildings in which the new machinery will be installed. New machinery to include 20 broad looms is now being installed.

**Knoxville, Tenn.**—The Appalachian Mills, manufacturing men's cotton underwear exclusively in this city will sell their output direct through the firm of Elmer F. Tartzell, 346 Broadway, New York city.

**Atlanta, Ga.**—J. C. Cooper and the other incorporators of the Southern Manufacturing Company have determined on meeting about the first of the coming year to organize and complete plans for building or acquiring a mill. The company is capitalized at 100,000.

**Alexander City, Ala.**—The Alexander City Cotton Mills will probably additions to its present plant during the coming twelve months. It is expected to increase the machinery outlay to double its present capacity. C. E. Riley is president and F. E. Heymer is agent.

**Charlotte, N. C.**—A \$500,000 cotton mill has been organized and will be located near the Hoskins Mill. A. B. Lincoln, of Fall River, Mass., will be president; O. A. Robbins, secretary and treasurer, and C. B. Skipper, of Lancaster, S. C., will be superintendent. Contracts for the machinery have been placed.

**Smithfield, N. C.**—The Ivanhoe Mfg. Co. has placed an order with Edwin Howard, Southern represen-

tative of the Mason Machine Works, for 6,500 additional spindles with carding, roving and picking machinery to match. The addition to the building is now under construction.

**Lenoir, N. C.**—It is stated on good authority that Lenoir is soon to have a hosiery mill. The details have not been fully decided upon, but it is almost certain that such a mill be erected. This would mean much for Lenoir, as it would give employment to a great many boys and girls.

**Hickory, N. C.**—The Ivey Mfg. Co. has purchased 30 spinning frames and additional card room machinery to bring its equipment up to 15,000 spindles.

This equipment, which was purchased from the Mason Machine Works, will give sufficient carding and spinning to balance the weaving and night operation will be discontinued.

**Tallapoosa, Ga.**—The Tallapoosa Mills will add 2,500 spindles and the contract for this new machinery has been awarded. In fact, the new equipment is now being received for installation and will soon be in operation. About \$50,000 is being expended for the enlargement. The dyes, 28 cards, steam power plant, etc., and is operating day and night in order to meet the demand for its goods.

**Bessemer City, N. C.**—One of the mills here, known as the Vermont Mill, within a few days will manufacture bags for the use of cement manufacturers. The building is being enlarged for this purpose and the addition is nearing completion.

**Nashville, Tenn.**—J. H. Hicks, of Talladega, has become interested in the Nashville Hosiery Mills, and with J. H. Thomas and J. H. McPhail, the owners, will operate the plant, which has been idle for some months. The entire equipment is being put in the best possible condition for economical productions. The equipment comprises 150 knitting machines, forty looping machines, dyeing machinery and electric power drive.

**West Point, Ga.**—The annual statement of the Riverdale Cotton Mills has been given out as follows: President, William A. Bullard; treasurer, Horace S. Sears. Report of August 31, 1911, shows: Assets—Real estate, \$159,482; machinery, \$252,294; merchandise, \$123,042; stock in process, etc., \$32,329; cash and debts receivable, \$418,254; total, \$685,401. Liabilities—Capital stock, \$350,000; accounts payable, \$3,494; funded indebtedness, \$100,000; floating indebtedness, \$145,000; profit and loss, \$63,219; depreciation, \$23,688; total, \$685,401.

**Selma, Ala.**—A suspender factory will be established here with offices on Water street. The product will be known as the Tillman washable suspender, and according to D. E. Tillman, president of the company and inventor of the suspender the product is only one of its kind ever put on the market.

The machinery for the assembling and turning out of the finished product has been ordered and is expected to be in place and ready for operation in a few days.

**Selma, Ala.**—The Helen Cotton Mills have been purchased, the bid being \$55,000. This property comprises land, buildings and machinery for manufacturing cotton cloth, about 13,000 ring spindles and 350 narrow looms being in position. The plant was originally known as the Matthews Cotton Mills and later as the Cawthon Cotton Mills. Then the Helen Cotton Mills were formed and took over the property last year with a view of investing \$70,000 for betterments.

**Griffin, Ga.**—Application for a charter for the Georgia Cotton Mills has been made by William H. Beck, Ronald Ransom and Morris Brannon, the capital stock to be \$50,000. The new concern will manufacture all kinds of cloth and goods that can be made from cotton, and will maintain its principal office in or near Griffin.

This company will probably take over one of the mills which were recently sold in bankruptcy.

**Marion, N. C.**—The Marion Manufacturing Company is now constructing its addition for which the contract was recently awarded. This building will enable the company to add considerable weaving and spinning machinery, contracts for which have been awarded to the Saco-Pettie Co. of Newton Upper Falls, Mass.; Draper Co. of Hopedale, Mass., and Fales & Jenks Machine Co. of Pawtucket, R. I. Riddle Brothers have the contract for the building.

**Post City, Texas.**—It is reported that C. W. Post, millionaire cereal food manufacturer of Battle Creek, Mich., will establish a 10,000 spindle cotton mill at Post City. The initial cost of the plant, it is said, will approximate \$400,000, with an annual production of about 2,000,000 yards of finished sheetings. H. W. Fairbanks, of Dallas, Texas, according to report, will have general supervision of the mill, and it is expected that operations will be commenced in time to handle 1912 cotton.

**Marion, N. C.**—By order of the board of directors, which met in Marion, December 6, a stockholders meeting has been called by the president to be held December 21

to approve and ratify the issuance of an additional \$300,000 capital stock on the Marion Manufacturing Company or such part of it that is deemed necessary to make additions, extensions, etc., to its plant. When these matters are consummated, this will give Marion around a \$500,000 mill corporation.

**Columbus, Ga.**—The Meritas Mills have recently installed 150 new Draper looms, three new inspecting machines and one new brusher. An electric elevator has been placed in the weave room.

In the spinning room a Lowell slasher has been put in operation. Here also have been added two new Hopedale warpers and an American wrap drawing machine. The spinning room is now being run night and day, requiring two sets of help to spin enough yarn to keep the looms running.

**Rock Hill, S. C.**—Complaint has been filed with the Interstate Commerce Commission by the Highland Park Manufacturing Company of Rock Hill against the Southern Railway Company. It is alleged that the railroad is charging the company excessive rates on shipments of cotton seed from Pineville and Charlotte to Rock Hill. The commission is asked to have the railroad not only fix a fair rate, but to return the sum of \$617.81, which the manufacturing company alleges it has been overcharged by the railroad.

**Oklahoma City, Okla.**—The Cotton Mills Securities Company of this place has increased its capital stock from \$10,000 to \$5,000,000 in order to complete its arrangements for financing a \$5,000,000 cotton mill company which it is proposed to form to build a mill. Five thousand acres of land have been purchased as a site for the plant and village, the latter to be known as Putnam City. I. M. Putnam is vice-president of the company. W. B. Smith Whaley, of Boston, a well-known mill architect and engineer is interested in the proposition and will prepare plans and specifications.

**Durham, N. C.**—The offices of the Durham Hosiery Mill No. 1 have been moved from the old building to the new office building that has only lately been completed.

The new building is of the latest style, and has all of the modern conveniences that an up-to-date office building should have. All of the bottom floor will be used for the offices, the other floors being used for departments of the mill.

Part of the old building has always been the finishing room and will now be employed for the finished product altogether, there making a large roomy place for the finishing of the goods. The Durham Hosiery Mills now have five different plants.



**Meridian, Miss.** — The Meridian Cotton Mills, which have been closed for the last 18 months, have been newly organized and incorporated. The stockholders are all Meridian business men, among them being S. H. Floyd, E. Cahn, K. Threefoot, I. Marks, J. W. Bostick and others. The capital of the company is \$130,000.

A meeting of the stockholders will be held within the next few days and officers elected.

**West Point, Ga.** — The annual statement of the West Point Mfg. Co. has been given out as follows:

President, Willard A. Bullard; treasurer, Horace C. Sears. Report of Oct. 31, 1911 shows: Assets—Real estate, \$1,147,489; stocks in process, etc., \$351,839; cash and debts receivable, \$212,364; investments, \$210,000; total, \$3,794,862. Liabilities—Capital stock, \$1,500,000; accounts payable, \$12,971; floating indebtedness, \$1,205,000; profit and loss, \$942,703; depreciation, \$134,188; total, \$3,794,862.

#### New Treasurer of Arista Mills.

A. H. Bahnson has resigned his position as machinery salesman for Stuart W. Cramer, of Charlotte, to become treasurer of the Arista Mills, Winston-Salem, N. C., resignation to take effect Feb. 1st, 1912.

John Ross, formerly business manager of the Charlotte Observer will succeed Mr. Bahnson. Mr. Ross is now at Mayesworth, N. C., and will spend about two months in the Mayes Mfg. Co.

#### John W. Fox Changes Position.

John W. Fox has resigned his position as manager of the textile department of the Westinghouse Electric & Manufacturing Co., and after January 1, will be associated with J. H. Mayes, Southern agent of Potter & Johnston Machine Co., Woonsocket Machine & Press Co., Fales & Jenkins Machine Co., and other textile machinery builders.

Mr. Fox is one of the best-known and most experienced machinery men in the South and has a large number of friends in the textile industry.

#### Big Yarn Order.

The Financial Times, London, under date of Dec. 1, says: "It was reported in Manchester, that J. & P. Coats, Ltd., had this week placed extensive orders in Manchester in cotton yarns. It is estimated that the total sales amount to nearly 15,000,000 pounds, and it is understood that the orders given out will not be completed until about the middle of next year. Many spinning mills have participated in the business, but it is said that the bulk of the orders have gone to the



## Humidity Most Needed Now

This is the time of the year when humidity is most needed—when the fiber flies like quills on a porcupine. These are the days of oozy yarn and conversation that don't print up well.

Reason—the fiber is gasping, literally gasping for a drink—of water. It came into your mill with water in it, and it demands justice—nothing but a drink.

Humidity means more in these next few months—in your pocketbooks—than all the rest of the year.

Get Turbofied—and satisfied.

THE G. M. PARKS CO.  
FITCHBURG, MASS.

Southern Office, No. 1 Trust Bldg., Charlotte, N. C.  
B. S. COTTRELL, Manager

## Textile Directories

### Southern Cotton Mill Directory

BY TEXTILE PUBLISHING CO.

POCKET SIZE \$1.00

### American Textile Directory

BY LORD & NAGLE

Office Edition \$3.00

Traveling Edition \$2.00

### Blue Book

BY DAVIDSON PUBLISHING CO.

Office Edition \$4.00

Traveling Edition \$3.00

SEND ORDER TO

Clark Publishing Co.

CHARLOTTE, N. C.

Fine Spinners' Association. Yarns suitable of sewing cotton purposes are made from Egyptian cotton, and his large buying has brought relief to certain producers, as this section of the market has not been doing particularly well recently."

#### Lowell Machine Shop Now Independent.

A matter of considerable interest is the recent purchase of the stock in the Lowell Machine Shop, Lowell, Mass., by Robt. F. Herrick and associates of Boston, Mass.

It marks the passing of the ownership of one of the largest and most profitable textile machinery companies of the country, from those who have owned it for the past six years to an entirely new group of owners. With the control of the Lowell Machine Shop passes to the new owners, of course, the Kitson Machine Company, which the Lowell Machine Shop owns. The two corporations will, however, be operated independently, the president and treasurer being the same, for both, but the direct management of each being in separate hands.

Under the new regime the old owners who, are themselves cotton machinery makers, will find the Lowell Machine Shop a genuine competitor with live management. Wilmot A. Evans, of Boston, will be the new president and Mr. Herrick the treasurer. The Lowell Machine Shop will continue to manufacture cotton machinery and will continue also its manufacture of worsted machinery.

Rogers W. Davis, formerly assistant Southern representative of the Lowell Machine Shop is now Selling Agent under the new regime with headquarters at Lowell, Mass.

#### Pathos.

"But it seems to take all your patients a long time to get well, doctor."

"Yes, but as soon as I begin to get a larger practice I can afford to let my patients get well quicker."—Houston Post.

Raggs (the beggar): "After all, it pays ter be perlitte, mate."

Waggs (another beggar): "Not always. The other day I was doin' the deaf and dumb lay, and when a gent gave me a dime I said, 'Thank ye, sir,' and he had me arrested."—Exchange.

"I wonder why a woman repeats everything you tell her?"

"My dear boy, a woman has but two views of a secret. Either it's not worth keeping or it's too good to be kept."—Judge.

## AMERICAN MOISTENING COMPANY

BOSTON, MASSACHUSETTS

WILLIAM FIRTH, President

THE ONLY PERFECT SYSTEM OF AIR MO  
COMINS SECTIONAL HUMIDIFIER

J. F. PORTER, Southern Representative, Room 209, Rhodes Building, Marietta Street, ATLANTA



## Cotton Goods Report

New York. — Business in cotton goods during the past week has shown the usual decrease due to holiday season and the approach of stock taking time. Some jobbers are still placing spot orders for standard lines of bleached goods, and in some cases orders are being put through carrying delivery into January. When it becomes a question of covering beyond the first month in the new year, the buyers are not willing to operate and state that they prefer to purchase as they go along, and will take no chance on higher prices and short supplies.

There, however, seems every reason to believe that the end of the year turn business will go forward in a reasonably satisfactory manner, and as the year gets older it will increase in volume.

Plain colored fabrics, gingham, poplin and soft finished chambrays look exceptionally good for the coming spring. Tissues and fine gingham are finding a good sale everywhere.

Some interest in the probable showing of napped goods for the new season has been reflected in the market but is doubtful if anything is done before the first of the year. Formerly goods of this character were shown in December but of late they have gone over until January before being opened.

The Fall River print cloth market was quiet during the past week.

Manufacturers expect no marked activity until the new year, but it is believed that business will show a big increase before the end of January. Mills held quite steadily to quoted prices in anticipation of securing the best prices as soon as there is a resumption of activity.

Sales for the week were estimated at 85,000 pieces. About half of the sales were spots. Goods sold ahead were mostly for delivery during January and February.

Current quotations for cotton goods in New York were as follows:

Pt. clths, 28-in, std.	3 1-8	—
28-in., 64x60s	3	—
Gray goods, 39-in.,		
68x72s.	4 3-4 to 4 7-8	
38 1-2-in., stds	4 3-16 to 4 1-8	
4-yd, 80x80s	6	—
Brown drills, stds	7 1-2	—
Shtgs, south, std.	7 1-4 to 7 1-2	
3-yard	7	—
4-yard, 56x60s.	5 3-8 to 5 1-2	
Denims, 9-ounce	12 1-4 to 16 1-2	
Stark, 8-oz duck	12 1-2	—
Hartford, 11-oz, 40-		
in-duck	15 1-8	—
Tickings, 8-oz.	12 1-2	—
Std fancy prints.	4 3-4	—
Std gingham	6 1-4	—
Fine dress ging.	7	to 9 1-4
in- cambrics.	3 3-4 to 4 1-4	

### Weekly Cotton Statistics.

New York, Dec. 15.—The following statistics on the movement of cotton for the week ending Friday, December 15, were compiled by the New York cotton exchange:

WEEKLY MOVEMENT.		This Yr.	Last Yr.
Port receipts	441,563	427,849	
Overland to mills and Canada	37,981	39,343	
Southern mill takings (estimated)	100,000	70,000	
Gain of stock at interior towns	45,642	13,521	

Brought into sight for the week... 625,186 550,713

TOTAL CROP MOVEMENT.		This Yr.	Last Yr.
Port receipts	6,246,969	5,37,141	
Overland to mills and Canada	317,133	454,599	
Southern mill takings (estimated)	1,180,000	1,000,000	
Stock at interior towns in excess of Sept. 1	758,125	690,674	

Brought into sight thus far for season... 8,502,227 7,612,414

Five hundred and sixty-two bales added to the receipts for the season.

Two thousand three hundred and seventy-nine bales added to the interior stocks.

### Cotton Manufacturing Progress in Peru.

The owners of the Vitarte Cotton Mill are importing, at considerable expense, a complete outfit of dyeing machinery from England for their mill at Vitarte, some 9 miles from Lima, which they estimate will save them at least \$20,000 a year by enabling them to dye their own goods, instead of importing dyed fabrics and dyes from England, as at present.

Any improvements in the output of the seven cotton mills now existing in Peru, which supply 25 per cent of the cotton goods used in the country, will naturally tend to limit the market for imports. As British interests control the mills, the apparent loss to British imports—which now comprise 57.1 per cent of the total—will not be as great as will be that of the Germans, the next largest importers, who supply 17.9 per cent of all cotton textiles imported into Peru, and Americans to a lesser degree (the United States only supplies 3.3 per cent of the total). The average annual importations of cotton textiles into Peru during the three calendar years 1907-1908-1909 (latest statistics available) amounted to \$3,812,870 United States currency, or \$0.66 per inhabitant, calculating the population of Peru at 4,500,000. Peru is the twelfth largest raw cotton-producing country in the world and the fourth largest American cotton-producing country.—Consular Reports.

## GRINNELL WILLIS & COMPANY

44-46 Leonard Street, New York

### SELLING AGENTS

BROWN AND BLEACHED COTTON GOODS FOR HOME EXPORT MARKETS

## DIXON LUBRICATING SADDLE CO.

BRISTOL, R. I.



Use Dixon Patent Stirrup Adjusting Saddles, the latest invention in Saddles for Top Rolls of Spinning Machines

Mfrs. of all kinds Saddles, Stirrups and Levers

Send for Sample

## Southern Audit Co.

(INCORPORATED)

### Public Accountants and Auditors

901-903 Realty Building  
Phone 2103

CHARLOTTE, N. C.

C. L. SMITH  
President

JOHN W. TODD  
Vice-President and Secretary

## FOR SALE OR RENT

Large cotton mill buildings, without machinery, situated adjacent to a good hydro-electric power plant, in a prosperous Southern city. Twenty-one tenement houses, ready for immediate occupancy, go with the property. Local capital available to right parties.

Also a smaller mill, with machinery complete, suited for making cotton yarns: Most liberal propositions made if right party can be obtained. Refer to file No. 7500 for further information.

## M. V. RICHARDS

Land and Industrial Agent

Southern Railway

Room J

WASHINGTON, D. C.

## Clays in the South

The U. S. Government report shows that the value of brick and tile manufactured from clay in Pennsylvania for 1909 exceeded twenty million dollars.

We can show limitless deposits of superior clay in easy reach of reasonable priced electric power, where transportation facilities offer a very wide distribution.

An ideal location for a large plant. For particulars address

## J. A. PRIDE

General Industrial Agent, Seaboard Air Line Railway

NORFOLK, VIRGINIA.



# The Yarn Market

Philadelphia, Pa.—The indication of greater strength in the cotton market has not as yet affected the buyers of cotton yarns and the demand continues to be chiefly for small quantities for prompt delivery although one inquiry for 50,000 pounds Southern frame spun cones, is reported

While many of the dealers are decidedly bearish on both cotton and yarns, there are a few who profess to believe that yarn prices are now at the bottom or very near it. Reports from the South are to the effect that one or two dealers are contracting with spinners for all the 20-2 warps they can get at 18 1-2 cents, which is considered as a speculative effort to boost prices.

Dealers expect that business will be quiet from now until at least the tenth of January, as this is stock taking time with many manufacturers.

## Southern Single Skeins.

8s	15 1-2-16
10s	16 —
12s	16 1-2—
14s	16 1-2-17
16s	17 —17 1-2
20s	17 1-2-18
26s	19 1-2—
30s	20 1-2—

## Southern Two-Ply Skeins:

8s	16 —
10s	16 1-2—
12s	16 1-2—
14s	17 —
16s	17 —18
20s	18 —18 1-4
24s	19 1-2—
26s	20 —
30s	20 1-2-21
40s	20 1-2-21
40s	26 —27
50s	32 —
60s	39 —40

## Carpet and Upholstery Yarn in Skeins:

8-3 hard twist	15 —16
8-4 slack	17 —
9-4 slack	17 1-2—

## Southern Single Warps:

8s	16 —
10s	16 —
12s	16 1-2—
14s	16 1-2—
14s	16 1-2—
16s	17 —17 1-2

20s	17 —17 1-2
24s	19 —
26s	19 1-2—
30s	21 —
40s	26 —28

## Southern Two-Ply Warps:

8s	16 —16 1-2
10s	16 1-2-17
12s	17 —
14s	17 1-2—
16s	17 1-2-17 3-4
20s	18 —19
24s	19 1-2—
26s	30 —
30s	20 1-2-21
36s	23 1-2-24
40s	26 —28
50s	32 —33

## Southern Frame Spun Yarn on Cones

8s	16 —
10s	16 —16 1-2
12s	16 1-2-17
14s	17 —
16s	17 1-2—
18s	17 1-2-18
20s	18 1-2—
22s	18 1-2-19
24s	19 —
26s	20 —
30s	21 —21 1-2
40s	25 1-2—

## Single Skeins Carded Pooler:

20s	21 1-2-22
24s	24 —
26s	24 1-2—
36s	28 —
40s	29 —29 1-2
50s	36 —

## Two-Ply Carded Peeler in Skeins:

20s	22 1-2-23
22s	23 —23 1-2
24s	24 —
26s	24 1-2—
30s	25 —25 1-2
30-1 1's	30 —
36s	27 1-2-28
40s	29 1-2-30
50s	35 1-2-36
60s	42 —42 1-2

## Single Combed Peeler Skeins:

20s	26 —
24s	27 —27 1-2
30s	28 1-2-29
40s	36 —
50s	44 —
60s	50 —51

## Two-Ply Combed Peeler Skeins:

20s	26 1-2—
24s	27 1-3—
30s	29 —
40s	36 —
50s	44 —
60s	50 —54
70s	0 —62
80s	60 —71

## A. M. Law & Co. F. C. Abbott & Co

Spartanburg, S. .

BROKERS

Charlotte, N. .

BROKERS

Dealers in Mill Stocks and other Southern Securities

South Carolina and Georgia Mill Stocks.

	Bid	Asked
Abbeville Cotton Mills	70	75
Aiken Mfg. Co.	85	—
American Spinning Co.	—	162
Anderson C. Mills pfd	90	—
Aragon Mills	65	—
Arcadia Mills	93	—
Arkwright Mills	100	—
Augusta Factory, Ga.	60	65
Avondale Mills, Ala.	116	120
Belton Cotton Mills	—	130
Brandon Mills	93	—
Brogan Mills	61	—
Cabarrus	130	—
Calhoun Mills	61	—
Capital Cotton Mills	80	85
Chiquola Mills	—	167
Clifton	75	85
Clinton Cotton Mills	—	125
Courtenay Mfg. Co.	—	95
Columbus Mfg. Co., Ga	—	95
Columbus Mfg. Co., Ga	92 1/4	100
Cox Mfg. Company	—	70
Eagle & Phenix Ga.	117	—
Easley Cotton Mills	160	165
Enoree	—	45
Enoree Mfg. Co., pfd.	—	100
Enterprise Mfg. Co., Ga	75	—
Exposition Cot. M., Ga.	—	210
Fairfield Cotton Mills	—	70
Gaffney Mfg. Co.	—	60
Gainesville C. M. Co. Ga	—	80
Glenwood Mills	—	141
Glenn-Lowry Mfg. Co.	101	—
Glenn-L. Mfg. Co., pfd	—	95
Gluck Mills	—	100
Granby Cot. Mills, pfd.	—	38
Graniteville Mfg. Co.	160	165
Greenwood Cotton Mills	57	59
Grendel Mills	—	100
Hamrick Mills	—	100
Hartsville Cot. Mills	—	190
Inman Mills	—	105
Inman Mills, pfd.	—	101
Jackson Mills	—	95
King J. P. Mfg Co., Ga	85	100
Lancaster Cot. Mills	—	130
Lancaster C. Mills, pfd	98	—
Langley Mfg. Co.	—	60
Laurens Cot. Mills	—	125
Limestone Cot. Mills	—	175
Lockhart Mills	—	10
D. E. Converse Co.	—	65
Dallas Mfg. Co., Ala.	—	110
Darlington Mfg. Co.	75	—
Drayton Mills	—	95
Marlboro	—	75
Mills Mfg. Co.	—	90
Mollohon Mfg. Co.	—	105
Mollohon Mfg. Co.	—	105
Monarch Cot. Mills	—	110
Monaghan Mills	—	101
Newberry Cot. Mills	—	125
Ninety-Six	—	135
Norris Cotton Mills	—	115
Olympia Mills, 1st pfd.	—	90
Orangeb'g Mfg. Co., pfd	—	90
Orr Cotton Mills	—	91
Ottaray Mills	—	100
Oconee	—	100
Oconee, pfd	—	100
Pacolet Mfg. Co., pfd.	—	90
Pacolet Mfg. Co., pfd.	—	100
Parker Mills (Guar.)	—	102

Southern Mill Stocks, Bank Stocks,

N. C. State Bonds, N. C. Rail-

road Stock and Other High

Grade Securities

## North Carolina Mill Stocks.

	Bid.	Asked
Arlington	—	140
Atherton	—	—
Avon	—	—
Bloomfield	—	110
Brookside	100	105
Brown Mfg. Co.	100	110
Cabarrus	131	—
Cannon	120	141
Chadwick-Hoskins	—	95
Chadwick-Hoskins, pfd.	—	100
Clara	—	110
Cliffside	190	200
Cera	—	135
Dresden	—	136
Dilling	—	—
Efird	100	125
Elmira, pfd.	—	100
Erwin Com	—	120
Erwin, pfd	—	101
Florence	—	126
Flint	—	130
Gaston	—	90
Gibson	—	70
Gray Mfg. Co.	—	121
Highland Park	—	150
Highland Park, pfd.	—	101
Henrietta	—	170
Imperial	—	101
Kesler	—	125
Linden	—	—
Loray, pfd	—	90
Lowell	—	181
Lumberton	—	251
Mooresville	—	123
Modena	—	90
Nokomis, N. C.	—	200
Ozark	—	92
Patterson	—	110
Raleigh	—	100
Roanoke Mills	—	155
Salisbury	—	136
Statesville Cot. Mills	—	96
Trenton, N. C.	—	—
Tuscarora	—	90
Washington, pfd	—	101
Washington	—	20
Wiscasset	—	103
Woodlawn	—	100
Parker Mills com.	—	25
Piedmont Mfg. Co.	—	160
Pelzer	—	138
Pickens Cotton Mills	—	94
Piedmont Mfg. Co.	—	160
Poe, F. W. Mfg. Co.	—	115
Riverside Mills	—	25
Saxon Mills	—	120
Sibley Mfg. Co., Ga.	—	60
Spartan Mills	—	120
Toxaway Mills	—	72
Tucapau Mills	—	260
Union Buffalo Mills, 1st pfd	—	50
Union-Buffalo Mills, 2d pfd	—	10
Victor Mfg. Co.	—	112
Ware Shoals Mfg. Co.	—	80
Warren Mfg. Co.	—	95
Warren pref.	—	100
Watts	—	100
Whitney	—	115
Williamston	—	115
Woodruff	—	105
Woodside Mills, com.	—	70



## Personal Items

J. W. Hood is now night overseer weaving at Siluria, Ala.

Albert Sutton, from Avondale, Ala., is now fixing looms at Siluria, Ala.

W. A. Cook has moved from Knoxville, Tenn., to Albemarle, N. C.

C. E. O'Pry is now superintendent of the Vardry Mills, Greenville, S. C.

S. S. Kelly is now superintendent of the Georgia Mfg. Co., Gainesville, Ga.

Chas. Johnston, of Mt. Pleasant, N. C., has accepted a position with the Gibson Mills, Concord, N. C.

Fred Gossett is now filling a position as section hand at the Woodside Mills, Greenville, S. C.

E. B. Williams has resigned as overseer of weaving at the Nokomis Mills, Lexington, N. C.

Ray Johnson has accepted the position of assistant time-keeper at the Trion (Ga.) Mfg. Co.

C. W. Welsh has been promoted to overseer of dyeing at the Roanoke Mills, Roanoke Rapids, N. C.

Geo. K. Tate has resigned as assistant superintendent of the Roanoke Mills, Roanoke Rapids, N. C.

N. P. Neal has resigned as overseer of weaving at the Edna Mills, Reidsville, N. C.

H. E. Sims, from Siluria, Ala., is now fixing looms at the Alexander City (Ala.) Cotton Mills.

W. M. Little, from Piedmont, Ala., is now with the Alexander City (Ala.) Cotton Mills.

W. D. Burnett is now fixing looms at the Monaghan Mills, Greenville, S. C.

Clayton Gunter has accepted a position in the roller shop of the Anderson (S. C.) Mills.

J. L. Riddle, of the Ottaray Mills, Union, S. C., has accepted the position of overseer of spinning at the Pomona Mills, Greensboro, N. C.

P. P. Jones, of Spray, N. C. has accepted the position of second hand in spinning at the Roanoke Mills, Roanoke Rapids, N. C.

Lanis Grimmer has been promoted from dyer to assistant superintendent of the Roanoke Mills, Roanoke Rapids, N. C.

J. B. O'Briant has resigned as overseer of beaming at the Roanoke Mills, Roanoke Rapids, N. C., and will enter the ministry.

— Green, of Spray, N. C., has accepted the position of overseer of beaming at the Roanoke Mills, Roanoke Rapids, N. C.

Fred Howell, electrician of the Locke Mill, Concord, N. C., who fell from a ladder and sustained some bruises, is improving rapidly.

John Dent, of Yorkville, S. C., has accepted the position of overseer of cloth room at the Fairfield Mills, Winnsboro, S. C.

J. B. Jenkins has resigned as second hand in spinning at Alabama City, Ala., and moved to Columbia, S. C.

M. T. Grimes has resigned as superintendent of the John E. Smith Cotton Mfg. Co., Thomson, Ga.

C. E. Clark, formerly of Greenville, S. C., has accepted the position of overseer of spinning at the New York Mills, Utica, N. Y.

J. H. Hearne, from the Maplecroft Mills of Liberty, S. C., is now overseer weaving at the Lydia Mills, Clinton, S. C.

J. H. Bush, who was for 27 years with the Mississippi Mills at Wesson, Miss., is now second hand in finishing at the Locke Mills, Concord.

R. F. Coble, formerly superintendent of the Locke Mills, Concord, N. C., has accepted the position of superintendent of the Pickett Cotton Mills, High Point, N. C.

J. N. Martin has resigned as second hand in carding at the Highland City Cotton Mill, of Talladega, Ala., to accept similar position with the Sycamore (Ala.) Mills.

Oscar Farmer has resigned his position with the French Broad Mfg. Co., Asheville, N. C., to accept a more lucrative one at Montville, N. J.

J. M. Wofford has resigned as second hand in carding at the Lydia Mills, Clinton, S. C., to accept position as card grinder with the Oakland Mills, of Newberry, S. C.

C. Froneberger has resigned as master mechanic with the Cedar-town Cotton & Export Co. to accept similar position with the Alexander City (Ala.) Cotton Mills.

J. W. Hildebrand, from Avondale Mills, Birmingham, Ala., has accepted position as overseer of spooling, slashing and warping at the Buck Creek Cotton Mills, Siluria, Ala.

L. R. Painter has resigned as overhauler in spinning at the Glenn-Lowry Mills of Whitmire, S. C., to accept position of second hand in spinning with the Clinton (S. C.) Cotton Mills.

### Serious Cutting at Cotton Mill.

Lloyd Miller, a young white man employed at the Brandon Mill, Greenville, S. C., was lodged in the county jail this week after engaging in a serious cutting affray at the mill. The man, who is about 25 years of age, attacked a loom fixer, whose name could not be learned, and slashed him seriously with a knife.

Mill was placed under arrest by the constable of the Brandon Mill and it is probable that he will be given a hearing in the next few days.

### Supt. Greer Gives Oyster Supper.

Jas. A. Greer, superintendent of the Buck Creek Mills, Siluria, Ala., gave an oyster supper on December 9th, which was greatly enjoyed by all. Those present were: Wm. Sisk, A. W. Greer, T. B. Rector and J. W. Hood.

### Found Helpless in Woods.

John Neal, a mill man of Rock Hill, was found helpless and almost unconscious Thursday in a patch of woods near the Manchester Mill. At the Rock Hill hospital it found that Neal's wounds were quite serious. It was believed that he was assaulted by two white men who got out of the community immediately afterward.

### Kindergarten for Mill Children.

The Chinnabee Cotton Mills and the Highland City Mills have jointly established a kindergarten school for the children of the mill employees. Much attention will be given to welfare work among the operatives, and parks and playgrounds have been provided for their benefit.

### Overseers Banquet at Caroleen.

B. J. Dobbins, general superintendent of the Henrietta Mills, gave his annual overseers' banquet at Caroleen, N. C., on December 14th.

It was an occasion of more than usual interest and enjoyment because of the music and addresses which thrilled, and the sumptuous supper.

### Bank For Mill Village.

Greensboro, N. C.—A new bank for the city known as the White Oak bank was incorporated and will begin business the first of the year. It will be for the White Oak Mills and the village and is in line with the extensive plans that the Messrs. Cone have in view for building up the town.

### Banquet at Lowe Mills.

On December 10th, in the Lodge rooms of the Elks the management of the Lowe Mill tendered its office force and mill foremen a banquet. The affair was given as a reward to the working force of the mill as an appreciation for doubling the output of the mill in a given length of time. Mr. Chas. Lane Poor, treasurer of the Lowe Mill having stated to Mr. Tidwell, foreman of overseers that if he would double the output by Christmas he would give the employees a banquet. This was accomplished by Mr. Tidwell and his corps of assistants.

Mr. Lawrence Cooper acted as toast master of the occasion and after a few remarks as to the good work of the past year at the mill, called on the following gentlemen for short talks: Mr. Tidwell, foreman weave room; Mr. Pratt, of the Abingdon Mill; Mr. Bradley, of the Merrimack Mills; Mr. Armudy, superintendent of the Abingdon Mill; Mr. Hamilton, manager of Lowe

Mills; Mr. Hincheliffe of the Dallas Mill; and Judge Ballentine. Music was furnished throughout by the Lowe Mill orchestra.—Huntsville (Ala.) Mercury Banner.

### Live Wire Proves Fatal.

Belmont, N. C.—Walter Neagle, the employe of the Majestic Manufacturing Company who was injured Thursday by coming in contact with a live wire charged with 2,300 volts died the following day without ever having regained consciousness. That he lived as long as he did, twenty hours, after being subjected to a current of 2,300 volts, is a matter which causes much wonder. The accident occurred in the following manner:

Mr. Neagle, in company with several other men was engaged in the installation of a motor. Some of the wires just at the point of contact with the motor had been left uninsulated. Mr. Neagle, reaching across with a wrench in his hand to tighten a bolt, touched one of the deadly wires with his shoulder. The entire force of the 2,300 volts threw his hand against the wires and he was badly burned about the neck and ears. Some of the men sprang to the switchboard and cut off the current.

His body, thus released, fell the distance of twelve feet to the floor. His head struck some part of the mill machinery and was badly cut.

"What's your name?"

"John."

"I mean your full name."

"It's John whether I'm full or not."—Ex.

"I know a city man who is making a fortune raising cucumbers on a town lot."

"How does he do it?"

"He buys them from the producers for 10 cents a dozen and raises them to 5 cents apiece."—Kansas City Star.

"I want to marry a hero?"

"Well, I'm a brave man. I am a widower that is willing to marry again."

"That isn't bravery. It's lunacy."—Ex.

"Doctor, I've got rheumatism pretty bad in my left leg."

"I fear that comes from old age, sir."

"Old age nothing! My right leg's just as old as the left and it's feeling fine."—Ex.

### Jewell Cotton Mill.

#### Thomasville, N. C.

C. H. Boyd.....Superintendent  
Z. G. Holtzclaw.....Carder  
W. R. Bemick.....Spinner

#### Hartsville, S. C.

C. A. Buchanan.....Superintendent  
W. A. Carpenter.....Asst. Supt.  
J. R. McEntire.....Carder  
L. B. Crouch.....Spinner  
W. L. Dunn.....Weaver  
L. E. Bagwell.....Master Mechanic



# Want Department

## Want Advertisements.

If you are needing men for any position or have second hand machinery, etc., to sell, the want columns of the *Southern Textile Bulletin* afford a good medium for advertising the fact.

Advertisements placed with us reach all the mills.

## Employment Bureau.

The Employment Bureau is a feature of the *Southern Textile Bulletin* and we have better facilities for placing men in Southern mills than any other journal.

The cost of joining our employment bureau is only \$1.00 and there is no other cost unless a position is secured, in which case a reasonable fee is charged.

We do not guarantee to place every man who joins our employment bureau, but we do give them the best service of any employment bureau.

## Loom Fixer Wanted.

Wanted first class Draper loom fixer on 52-inch E Model looms at \$1.75 per day. Also several good weavers. My best weavers make up to \$2.00 per day. Address  
U. L. Whitten,  
Overseer of Weaving,  
Thomaston Cotton Mills,  
Thomaston, Ga.

## Help Wanted.

On account of starting up more machinery, additional help is wanted. We offer steady employment, good wages and smooth running work, a healthy location and comfortable homes. For further information write  
The Erwin Cotton Mills Co.,  
Duke, N. C.

Wilson, N. C., 12-19, 1911.

Mr. David Clark,  
Charlotte, N. C.

Dear Sir:

Please don't fail to discontinue our ad for a carder, as we have received about 70 applications from all over the South. This shows that your paper is widely read.

Yours very truly,  
J. W. Ouzts, Supt.

WANT position as superintendent of a 7,000 to 30,000 spindle mill on colored goods. 37 years old. Married and strictly sober. Now employed. Good references. Address No. 80.

WANT position as superintendent. Now employed and have had long experience both as carder and superintendent. Good references. Address No. 81.

## Letters for Employment Bureau

In one mail this week we received letters addressed to No. 83, 87, 90, 93, 97 and 105 of our Employment Bureau.

These letters were from one mill needing an overseer of spinning, another mill needing an overseer of weaving and another wanting a cloth room overseer. The letters were, of course, promptly forwarded to the men whose numbers were as above and some of them will land the jobs.

WANT position as overseer of spinning. Have had long experience and can furnish satisfactory references. Address No. 82.

WANT position as overseer of spinning and twisting. Thoroughly experienced on No. 15s to 60s combed and carded. Now employed. Married and strictly sober. Good manager of help. Address No. 83.

WANTED position as overseer of spinning or superintendent of a small mill. 32 years old. Married. Good references. Experience on 8s to 60s local to Egyptian stock. Address No. 84.

WANT position as overseer of weaving. Have had long experience and am now employed. Can furnish good references. Address No. 86.

WANT position as overseer of spinning. Age 30. Married. Been in spinning room 20 years. Can furnish good references. Address No. 87.

WANT POSITION AS DYER. Have had 15 years experience on dyeing and bleaching long and short chain warps and raw stock; also sizing. Have been five years on present job. Good references. Address No. 88.

WANT position as superintendent of yarn mill of 5,000 to 10,000 spindles. Now employed as superintendent but want to change. Age 40. In mill 26 years. Held one position 7 years. Good references. Address No. 89.

WANT position as carder or spinner or both. Experience of 25 years on both combed and carded yarns from 8s to 60s. Satisfactory references. Address No. 90.

WANT position as superintendent of yarn or cloth mill. Experience on both coarse and fine counts and on white and colored goods. Satisfactory references. Address No. 91.

WANT position of superintendent of large mill. Now employed as superintendent and have held this position for five years. Age 36. Strictly sober. Good references. Address No. 92.

WANT position as overseer of weaving room in small mill. Have had 10 years' experience as second hand. Can give good references from present and past employers. Address No. 93.

WANT position as overseer of cloth room. Would not consider less than \$3.00. Experience on fine goods. Address No. 94.

WANT position as engineer and machinist. Have had good experience in cotton mill work. Am now employed but could change on 10 days notice. Good references. Address No. 95.

WANT position as superintendent of small mill or assistant superintendent of large mill. Experienced in all departments on from 1-2s up to 80s combed yarns. Good references. Address No. 96.

WANT position as overseer of cloth room. 20 years experience. 10 years at present place. Strictly sober. Good references. Address No. 97.

WANT position as overseer of weaving in small mill or second hand in weaving in large mill. Experience on plain, fancy and jacquard work. Draper and box looms. Married. Strictly sober. Good references. Address No. 98.

WANT position as superintendent. No employed but wish to change on account of health of locality. Have had long experience and can give satisfaction. References will be furnished on application. Address No. 99.

WANT position as superintendent. Have had long experience and have operated some of the best mills in the South. Resigned last position on account of illness from which have now recovered. Can furnish satisfactory references and can get results. Address No. 100.

WANTED — Position as second hand of carding in large mill or overseer in small mill. Five years experience as second hand. Married; age 25 years. Good references. Address No. 101.

WANT position as overseer of spinning, spooling and warping. Now employed but would prefer to change. Long experience and satisfactory references. Address No. 102.

WANT position as overseer of spinning. Now employed but want larger job. Can furnish good references from present or former mills. Address No. 103.

# PATENTS

## Trade marks and Copyrights

Send your business direct to Washington. Saves time and insure better service.

Personal Attention Guaranteed  
30 Years Active Service

SIGGERS & SIGGERS

Patent Lawyers

Suite 34 N. U. Bldg. Washington, D.C.

WANT position as overseer of carding. Experienced on No. 8s to 40s. Good manager of help. Age 30. Strictly sober. Best of references as to character and ability. Address No. 104.

WANTED — Position as overseer of cloth room. Am at present employed handling product of 1,700 looms on export and domestic. Have 14 years' experience as overseer with some of largest mills in South. Can furnish necessary reference as to integrity and ability. Prefer location in upper Carolina. Address No. 105.

WANT position as overseer of weaving. Experienced on plain and Draper looms and check work. Am also a designer and experienced finisher. Held last job 7 years. Good references. Address No. 106.

WANT position as overseer of spinning. Have eight years experience as overseer. Am 28 years old and have good references. Not interested at less than \$2.75. Address No. 107.

WANT position as overseer of carding. Now employed but desire larger room. Have had good experience and have held present position for six years. Address No. 109.

WANT position as carder or spinner. Seven years as machinery erector and overseer of carding and spinning. Married. Age 35. Good references. Address No. 110.

WANT position as superintendent at not less than \$2,000. Now employed, but would prefer to change. Good references as to both character and ability. Address No. 111.

WANTED position as overseer of weaving. 36 years of age. Married. Strictly sober. Good manager of help. Won't consider anything less than \$2.50 per day. Can furnish good reference from present and past employers. Address No. 112.

WANT position as overseer of finishing or weaving or both. Have had long experience and can furnish first class references. Address No. 113.

(Continued on Page 18)



**WANT** position as superintendent. Had long experience on many lines of goods and can get quality and production. Sober and reliable. Address No. 114.

**WANT** position as overseer of carding. 7 years card grinder. 4 years second hand. 3 years as overseer on present job. Married. Good references as to habits and work from present and former employers. Address No. 115.

**WANT** position as overseer of spinning in large mill or superintendent of yarn mill. Have had long experience and am now employed. Address No. 116.

**WANT** position as overseer of spinning. Have had 12 years experience on white and colored work both coarse and fine. Age 44. Strictly sober. Address No. 117.

**WANT** position as superintendent or overseer of carding and spinning. Now employed. Long experience and good references. Address No. 118.

**WANT** position as overseer of carding in large mill. Married. Sixteen years experience and am now employed but prefer to change. Address No. 119.

**WANT** position as overseer of carding. 36 years old, married and can furnish best of references. Now employed in large mill but wish to change. Address No. 120.

One night at a theatre some scenery took fire, and a very perceptible odor of burning alarmed the spectators. A panic seemed to be imminent, when an actor appeared on the stage.

"Ladies and gentlemen," he said, "compose yourselves. There is no danger."

The audience did not seem reassured.

"Ladies and gentlemen," continued the comedian, rising to the necessity of the occasion, "confound it all; do you think if there was any danger I'd be here?"

The panic collapsed.—Exchange.

O'Brien's friend Duffy got into a little difficulty and was haled into court. The charge was making moonshine whiskey—a serious charge. Duffy was asked by the Court to stand up, and the Judge began:

"Duffy, I have a very painful duty to perform. I regret it, Duffy. I have known you a long time and it pains me to have to do what I am about to do. It's my duty. I don't want you to think that I am adding a lecture with the rest of your punishment. It's my duty, sir, to sentence you to jail at hard labor for thirty years."

Duffy's knees clicked together, and then a smile slowly crossed his face.

"Have you anything to say, Duffy?" asked the Judge.

"Only this, Yer Honor," said Duffy, "O'm glad that ye wasn't mad at me."—Exchange.

### SALE OF DALLAS COTTON MILLS.

By virtue of an order of sale made at November Term, 1911, of the Superior Court for Gaston county in the civil action entitled "L. L. Jenkins vs. Dallas Cotton Mills," I will sell to the highest bidder, on the premises in the Town of Dallas, North Carolina, at 1 o'clock P. M., on Tuesday, January 2, 1912, all the property and effects belonging to said Dallas Cotton Mills, consisting of between forty (40) and fifty (50) acres of land in the town of Dallas, together with certain town lots, on one of which is situated the one-story brick cotton manufacturing plant, owned by said Dallas Cotton Mills, and also two 2-room tenements; 13 three-room tenements; 11 four-room tenements; 1 five-room tenement and 1 six-room tenement, and in which manufacturing plant there is the following machinery, to-wit:

1 40-inch Kitson breaker lapper with automatic feeder.

1 40-inch Atherton intermediate lapper.

1 40-inch Kitson finisher lapper.

5 40-inch Mason cards.

5 40-inch Whiln cards.

2 Whitin drawing frames, 4 deliveries each 12-inch cans.

2 Mason drawing frames, 4 deliveries each, 10-inch cans.

2 Providence slubbing frames 12x6 inch, 36 spindles each.

2 Providence intermediate frames, 10x5 inch, 72 spindles each.

2 7x3 1-2 inch Providence roving frames, 112 spindles each.

2 7x3 1-2 inch Providence roving frames, 160 spindles each.

10 Franklin spinning frames 2 3-4 inch space, 208 spindles each.

8 Mason spinning frames 2 3-4 inch space, 240 spindles each.

14 Mason spinning frames 2 3-4 inch space, 208 spindles each.

1 Easton & Burnham spoler, 80 spindles.

2 Franklin spoolers, 60 spindles each.

1 Tompkins spooler, 80 spindles.

2 Tompkins spoolers, 100 spindles each.

6 Fales & Jenks twisting 3 1-4 inch space, 176 spindles each.

5 Fales & Jenks twistlers 3 inch space, 160 spindles each.

2 Tompkins reels, 50 spindles each.

2 Tompkins reels, 44 spindles each.

1 Tompkins reel, 43 spindles.

1 Lowell beam warper, 510 ends.

1 Lowell beam warper, 460 ends.

1 Globe Machine Co. Denn warper, 1,800 ends.

1 Single cylinder Lowell slasher.

48 36-inch Lowell looms.

40 40-inch Lowell looms.

1 Cloth press.

1 Yarn press.

1 Cloth brusher, made by Curtis & Marble.

1 Cloth folder, made by Elliott & Hall.

Complete steam equipment, consisting of engine and boilers, all necessary shafting, pulleys, belts and other appliances and apparatus necessary for the operation of said manufacturing plant.

At the same time and place and by virtue of the aforesaid authority, I will also sell to the highest bidder a certain tract of land situated on the north side of the Dallas-Cherryville

**We carry a full line of General Supplies and make a specialty of equipping new mills**

WE MANUFACTURE

**Oak Tanned Leather Loom Harness,  
Belting. Weaving Reeds**

**AMERICAN SUPPLY COMPANY  
PROVIDENCE, R. I.**

public road about five miles west of the town of Dallas, containing 224 acres, more or less, and also another tract of land situated in Dallas and Cherryville townships, south of the Dallas-Cherryville road, containing 184 acres, more or less.

Terms of Sale: Ten (10) per cent of the purchase price to be paid in cash on day of sale, twenty (20) per cent to be paid upon confirmation of the sale and the residue in two equal installments, evidenced by notes, payable in three (3) and six (6) months from date of sale, with interest from day of confirmation, with privilege to the purchaser to pay all cash at any time, and the title to be reserved until the entire purchase price and interest is paid, but possession of the plant and other property necessary to the operation thereof will be delivered to the purchaser after confirmation and as soon as they shall effect insurance thereon in some reputable company or companies authorized to do business in this state, and cause the policy or policies to be endorsed "Loss, if any, payable to S. N. Boyce, Receiver as his interest may appear," said insurance to equal, at least, the unpaid portion of the purchase price. Persons desiring to examine the property will please apply to the undersigned who will give them an order directing the watchman in charge to exhibit same to them.

This November 23, 1911.

S. N. BOYCE, Receiver,  
Gastonia, N. C.

### LEECO COTTON MILLS FOR SALE

**A Very Valuable Cotton Mill Plant** consisting of

A Yarn and Weave Mill, Dyeplant, Electric Lighting Plant and Machine Shop, conveniently located on railroad with desirable freight rates.

By virtue of a decree entered November 21, 1911, in a certain action where in the Carolina Trust Company and others are the plaintiffs and the Leeco Cotton Mill Company and others are defendants, the undersigned receivers will sell on the premises of the Leeco Cotton Mill Company at Jonesboro, N. C., on January 15, 1912, at the hour of 12 m., to the last and highest bidder, all of the property of the Leeco Cotton Mills Company, real, personal or mixed.

The terms of the sale are 10 per cent. cash at the time of the sale and the balance upon the confirmation of the sale by the court.

A sale will be made separately of

the property of the Leeco Cotton Mills Company property known as the Eugenia Yarn Mill property, that is the property upon which bonds No. 35 to No. 100 inclusive have a first lien; and also separately the property known as the Clark Weave Mill, that is the property upon which bonds No. 1 to No. 34 inclusive, have a first lien. Each property, however, may be divided into such constituent parts as may seem to the receivers of the greatest advantage and so sold, and thereafter sold as a whole that is to say, the Eugenia Yarn Mill property sold as a whole and the Clark Weave Mill property sold as a whole. With the Eugenia property will be sold the office furniture, consisting of roller top desks, filing cabinet, typewriter, bookcase, chairs, iron safe, etc., etc., real estate consisting of 10 acres of land and ten tenement houses, carding and spinning room and office building and the usual equipment of a yarn mill, including 14 cards, 4,228 spindles, humidifiers, spindles, 1 steam engine, Westinghouse dynamo, switches, lamps, etc., a pump for boiler, heater, 100 H. P. boiler, shafting, pulleys, etc.; shop tools, etc. With the Clark property will be sold 7 acres of land and 7 tenement houses, 1 brick weaving mill building, and brick dye house, with machinery and equipment, consisting of boiler, engine, air-compressor, humidifier and Tank, Slasher machine, sizing kette, 100 C. & K. looms, 1 Stafford automatic (34 in.), finishing machine, sewing machine, folder, cloth inspector, power press, dye kettle, dryer, wringer, shafting, pulleys and belts, shop tools, etc., etc. Each of the mills is fully equipped and ready for operating. Doubtless easy terms of payment may be made by the purchasers with the greater number of bondholders.

An inspection of the premises is invited by those desirous of bidding. For fuller or more definite information apply to

J. L. Godfrey, Receiver,  
(Jonesboro, N. C.)  
R. C. Strong, Receiver,  
(Raleigh, N. C.)

"And when he proposed did you tell him to see me?" asked her mother.

"Yes, Mamma, and he said he'd seen you several times, but he wanted to marry me just the same."—Ex.

Meek—"I say, old chap, I'm in shocking luck. I want money badly, and haven't the least idea where I can get it."

Beek—"Well, I'm glad to hear that. I thought perhaps you had an idea you could borrow from me."



# CLASSIFIED LIST OF ADVERTISERS

**ARCHITECTS—**

Stuart W. Cramer.

**BANDING MACHINES—**

Cole Bros.

**ALIGNING AND LEVELING APPARATUS—**

Kinkead Mfg. Co.

**BELTING—**

Charlotte Supply Co.

**BOBBINS, SPOOLS, SHUTTLES—**American Supply Co.  
Charlotte Supply Co.  
Draper Co.**BOBBIN WINDERS—**

Universal Winding Co.

**BRUSHES—**

S. A. Felton &amp; Son Co.

**CARD CLOTHING—**W. H. Bigelow.  
Charlotte Supply Company.  
Jos. Sykes Bros.**CARBONIZING MACHINES—**

C. G. Sargents Sons Co.

**CARDS—**Mason Machine Works.  
Whitin Machine Works.**CLOTH ROOM MACHINERY—**

Stuart W. Cramer.

**COMBERS—**

Whitin Machine Works.

**COMMISSION MERCHANTS (Cloth)**

Grinnell Willis &amp; Co.

**COTTON MACHINERY—**Empire Duplex Gin Co.  
Draper Company.  
Whitin Machine Works.  
Mason Machine Works.  
Stuart W. Cramer.  
The Stafford Company.  
Fred H. White.  
Kilburn, Lincoln & Co.**DOBBIES—**Mason Machine Works.  
Kilburn, Lincoln & Co.  
The Stafford Company.**DRAWING FRAMES—**Mason Machine Works.  
Whitin Machine Works.**DRAWING ROLLS—**

Metallic Drawing Roll Company.

**DYESTUFFS AND CHEMICALS—**Arabol Mfg. Co.  
Danker & Marston.  
A. Klipstein & Co.  
H. A. Metz & Co.  
New Brunswick Chemical Co.  
Seydel Manufacturing Co.**DYEING, DRYING, BLEACHING, AND FINISHING MACHINERY—**C. G. Sargents Sons.  
Stuart W. Cramer.  
Psarski Dyeing Machine Co.**ENGINEERS—**

Stuart W. Cramer.

**FIRE HOSE AND FITTINGS—**American Supply Co.  
Charlotte Supply Co.**HUMIDIFIERS—**Stuart W. Cramer.  
American Moistening Co.  
G. M. Parks Co.**HUMIDIFYING MACHINES—**

C. G. Sargents Sons.

**LOOMS—**Draper Co.  
Kilburn, Lincoln Co.  
Mason Machine Works.  
Stafford Co.  
Whitin Machine Works.**LOOM HARNESS, REEDS AND SHUTTLES—**PICKERS—  
American Supply Co.  
Ivey Mfg. Co.  
Charlotte Supply Co.**LUG STRAPS—**

Ivey Mfg. Co.

**MILL CRAYONS—**American Supply Co.  
Charlotte Supply Co.**MILL SUPPLIES—**American Supply Co.  
Charlotte Supply Co.**NAPPING MACHINERY—**

Stuart W. Cramer.

**PICKERS AND LAPPERS—**

Kitson Machine Co.

**POWER TRANSMISSION MACHINERY—**

Stuart W. Cramer.

**PREPARATORY MACHINERY—**Empire Duplex Gin Co.  
Kitson Machine Co.**PUMPS—**

Stuart W. Cramer.

**QUILLERS—**

Whitin Machine Works.

**RAILROADS—**Seaboard Air Line.  
Southern Railway.**RING SPINNING FRAMES—**Mason Machine Works.  
Whitin Machine Works.**RING TRAVELERS—**

Charlotte Supply Co.

**ROLLS—**

Metallic Drawing Roll Co.

**ROVING MACHINERY—**

Whitin Machine Works.

**SADDLES—**

Dixon Lubricating Saddle Co.

**SEPARATORS—**

Draper Co.

**SHUTTLES—**

Union Shuttle Co.

**SIZING COMPOUND—**Arabol Mfg. Co.  
New Brunswick Chemical Co.  
Danker & Marston.  
A. Klipstein & Co.  
Seydel Mfg. Co.**SLASHERS—**

Stuart W. Cramer.

**SOFTENERS—COTTON—**Arabol Mfg. Co.  
New Brunswick Chemical Co.  
A. Klipstein & Co.**SPINDLES—**

Draper Co.

**SPINNING RINGS—**Draper Co.  
Whitin Machine Works.**SPOOLERS—**Draper Co.  
Whitin Machine Works.**STEAM ENGINES—**

Stuart W. Cramer.

**STEAM SPECIALTIES—**

Charlotte Supply Co.

**STOP MOTIONS—**Draper Co.  
The Stafford Co.**TEMPLES—**

Draper Co.

**TRAVELERS—**

U. S. Ring Traveler Co.

**TWISTERS—**

Draper Co.

**WARP STOP MOTIONS—**Draper Co.  
The Stafford Co.**WEIGHTING COMPOUNDS—**Arabol Mfg. Co.  
New Brunswick Chemical Co.  
Danker & Marston.  
Seydel Mfg. Co.**WARPERS—**Stuart W. Cramer.  
Draper Co.**WILLOWS—**

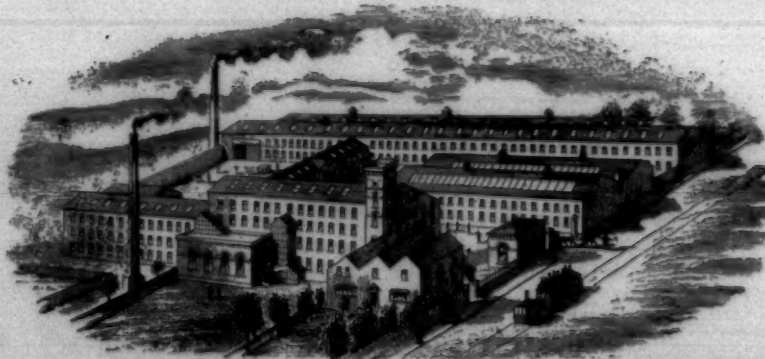
C. G. Sargents Sons Co.

**WINDERS—**Stuart W. Cramer.  
Universal Winding Co.

## Joseph Sykes Brothers, P. O. Box 88 Bell Phone 404

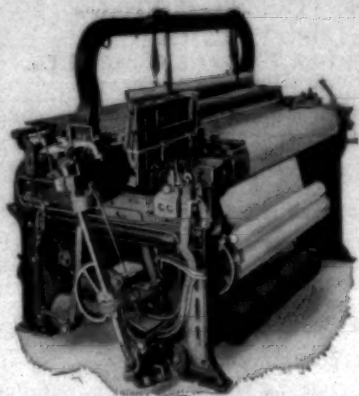
**CARD CLOTHING MANUFACTURERS**Hardened and Tempered Steel Wire Plow Ground  
Card Clothing

Revolving Top Flats Reclathed with our own Patent Steel Clip. Competent men to Clothe or Redraw Fillets. Licker-ins Rewound. Burnisher and Stripper Fillets, Dronsfield's Grinder Roller and Emery Fillets. All Regular sizes of Card Clothing always in stock and Shipped same Day Order is Received.

OFFICE AND FACTORY—4th FLOOR TOMPKINS BUILDING  
**R. D. THOMAS, Southern Agent**  
CHARLOTTE, N. C.



## "IDEAL" AUTOMATIC LOOMS



Unsurpassed in Simplicity, Durability and other Desirable Qualities. No special mill supplies required. They make less waste than any other loom.

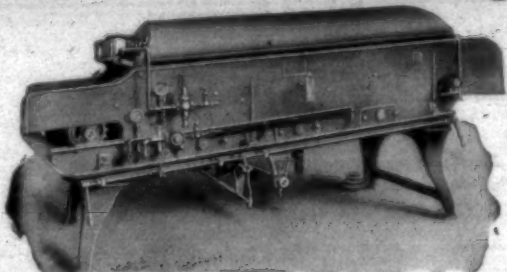
### They Produce Superior Cloth

*We invite correspondence and investigation*

**THE STAFFORD COMPANY**  
READVILLE, MASS.

FRED H. WHITE, Southern Agent,  
Realty Building, Charlotte, N. C.

### The Yarn Conditioning Machine



"Saving in Floor  
Space."

C. G. Sargents  
Sons Corp.

Graniteville,  
Massachusetts

B. S. COTTRELL

Charlotte, N. C.

Southern Agent

### The Charlotte Supply Company

CHARLOTTE, N. C.

Manufacturers of PURE OAK TAN-  
NED BELTING. Special attention given  
Furnishing New Mills Complete. Write  
for Prices.

GENERAL MILL FURNISHERS

## Southern Textile Bulletin

DAVID CLARK, Editor

A weekly publication devoted exclusively to the textile industry of the South. It reaches not only the mill office, but the superintendents, overseers and master mechanics.

Subscription \$1.00 Per Year

Advertising Rates Reasonable

ORGANIZED 1883

**UNION SHUTTLE CO.**

MANUFACTURERS OF:

**POWER LOOM SHUTTLES**

OF EVERY DESCRIPTION



Self  
Threading  
and Corru-  
gated Cop  
Shuttles  
A Specialty

Correspon-  
dence  
Solicited

Fitted with Porcelain Eye

For Woolen and Worsted Weaving

TELEPHONE CONNECTIONS

OFFICE AND FACTORY  
Corner Market and Foster Streets  
South Lawrence, Mass.

Lawrence, Mass.

### New Brunswick Chemical Co.

Preparations for Sizing  
and Finishing of all  
Kinds Cotton Cloths

SPECIALTIES FOR EXPORT GOODS

OFFICE AND WORKS

NEW BRUNSWICK, NEW JERSEY

Southern Representative,

S. H. BOYD, Greensboro, N. C.